

OUR BUSINESS IS TO KILL AS MANY GERMANS AS POSSIBLE
BEFORE THESE MURDERERS KILL US.

Manufacturers RECORD

An Exponent of Americanism

ESTABLISHED 1882

BALTIMORE, MARCH 21, 1918

\$5.00 PER YEAR
SINGLE COPY 15 CENTS

This "Made-in-Germany" War

If Germany had waged its war without barbarism; if every soldier in its armies had been a decent man; if there had been no outraging, no murder, no destruction of homes or of churches and cathedrals, Germany would still deserve the utmost punishment that could be inflicted by civilization upon any country because of this unholy war for its own material advancement.

But the world has been engulfed by awful woe; millions and millions have died and other millions have been maimed for life; hundreds of millions have suffered in the agony of seeing their loved ones forced by Germany into this awful war to save the world from German domination and damnation. Women and children have been outraged, the chivalry of the high seas has been supplanted by the foulest campaign of Hell-devised murder of innocent non-combatants that even the devil himself, as expressed through Germany, could devise; the very existence of all civilization has been threatened, and if Germany were to succeed, the whole world would sink back into the dark ages of atheism and barbarism.

We are face to face with all of these terrific realities and all the fearful possibilities the very thought of which staggers mankind.

And all of this has been brought about wholly by this "Made-in-Germany" war, started by Germany for the sole purpose of forcing Germany's domination and damnation over other countries.

These are the facts which our people should fully understand, and then they will slowly come into a realization of Germany's crime, surpassing all the crimes combined of all nations from the very beginning of time. Then they will realize that this "Made-in-Germany" war is indeed a "Made-in-Hell" war and is a fight to the death.

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VOL. LXXXIII, No. 12. }
WEEKLY.

BALTIMORE, MARCH 21, 1918.

\$5.00 A YEAR.
{ SINGLE COPIES, 15 CENTS.

PUBLISHED EVERY THURSDAY BY THE

MANUFACTURERS RECORD PUBLISHING CO.

RICHARD H. EDMONDS, Pres. VICTOR H. POWER, Tres.
FRANK GOULD, Vice-Pres. I. S. FIELD, Sec'y.

RICHARD H. EDMONDS, Editor and General Manager

BRANCH OFFICES

NEW YORK, 52 Broadway CHICAGO, 919 Fisher Bldg.
BOSTON, 733 Old South Bldg. ST. LOUIS, 608 Century Building

Subscription \$5 a year (payable in advance) to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. To Foreign Countries (including Canada) in the Postal Union, \$7.50 a year.

[Entered at the Baltimore Postoffice as second-class matter.]

In order to avoid delays, all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

UNTO GOD WE TURN.

Amid the storms of sea or the shot and shell of the battlefield, amid the temptations of life, and in the lonely hours, when, with aching hearts their thoughts turn to the dear ones at home, be thou O God to our defenders on land and sea an ever-present help. Comfort them with more than a mother's tender love; whisper cheer into their straining ears and touch their hearts with the peace of God which passeth all understanding, and unto Thy name shall we give praise now and forever more.

JAPAN SHOULD RECEIVE OUR HEARTIEST COMMENDATION AND CO-OPERATION IN HELPING TO SAVE THE SITUATION IN SIBERIA.

Stanford University, California, March 16.
Editor Manufacturers Record:

Japanese entrance into Siberia is absolutely necessary to prevent Germany from using Vladivostok as a base from which to menace the Orient and shipping in the Pacific Ocean. The United States, I understand, will not actively oppose Japanese invasion, while England and perhaps France will definitely approve.

Our failure to sanction Japanese entrance into Siberia is purely academic. The invasion as far as Irkutsk would be essentially a defensive measure on the part of Japan, with sufficient offensive possibilities to keep large German forces occupied, thus retarding Teutonic entrance into Persia and Asia Minor. It would also reduce German pressure toward Salonika.

The best allied opportunities for an effective offensive campaign are now apparently from Salonika and also in the strengthening of Mesopotamian and Palestine armies, effecting a junction and swinging northward, turning one wing to support the Caucasus and other threatening the Bosphorus, with the co-operation of the navy. Without Japanese invasion in the Far East these opportunities will soon be lost, thereby restricting allied operations to defensive work on all fronts.

COURTENAY DE KALB.

The foregoing telegram from Mr. DeKalb, taken in connection with a letter published in the East from Hon. Geo. F. Edmunds, for many years one of the leading statesmen of the country, now living

of Russia and the hope that Russia may yet redeem itself, we are afraid that Russia, made up of many peoples of different languages, cannot be welded into a homogeneous fighting power so long as Germany is overrunning that country and filling all Russia with its spies and buying its way wherever money can be used for bribery.

We would infinitely prefer to see Japan control the Siberian situation than to see Germany do it. We believe that Japan is infinitely superior in honor and integrity and in the virtues which make for the higher development of mankind than is Germany. We would far prefer to accept the word of Japan than the oath of Germany.

In the great struggle which threatens civilization itself, and which is now reaching a point when it must be fought to the final finish as between civilization and barbarism, we should welcome Japan heartily and enthusiastically as an ally, and we would again suggest that President Wilson might well send to Japan a committee composed of some of the foremost men of America that they might assure that country of our friendship and co-operation. We know of no man whose diplomatic power, whose position as former President of the United States, and whose great abilities as a states-

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LIBERTY.

Is life so dear, or peace so sweet, as to be purchased at the price of chains and slavery? Forbid it, Almighty God! I know not what course others may take, but as for me, give me Liberty, or give me death!—Patrick Henry.

The God who gave us life gave us liberty at the same time.—Thomas Jefferson.

Eternal vigilance is the price of liberty.—John Philpot Curran.

HERE'S ONE THING HE DID.

WONDER what Vice-President Marshall is doing, besides presiding over the Senate.—Albany Journal.

On Sunday, March 10, he made such a rattling good patriotic speech to a packed and jammed house in Daytona, Fla., that when one man failed to rise at the singing of the "Star-Spangled Banner," the men on adjacent seats cleared the way, grabbed the fellow (who proved to be a pro-German) and threw him bodily into the street.

May Vice-President Marshall keep on making speeches of that kind, to the quickening of the aggressive patriotism of the country—the patriotism that really counts!

HE CAN'T DO IT.

GIVE Billy a chance to hit the devil and his partner at close range. He could help tremendously to take hell out of Hohenzollernism and to put Hohenzollernism into hell.—Baltimore Evening Sun.

Even Billy Sunday cannot do the impossible. Hohenzollernism and hell are one and the same thing, and you cannot put either one into the other any more than at present, for each is already in the other to the limit of capacity.

In California, urging that the Japanese should be encouraged to go into Siberia, throws an interesting light upon how the farseeing men of the Pacific Coast are recognizing the supreme need of the co-operation of Japan in this great struggle.

Mr. DeKalb, one of the foremost chemists and engineers of the country, has for 25 years or more been actively identified with important enterprises on the Pacific Coast and in Mexico and South America, and is a broad student of world affairs. He has been anti-Japanese to some extent in the past, and therefore his hearty approval of the necessity of encouraging Japan to go into Siberia with the approval of the United States is all the stronger.

It may be said with absolute certainty that every pro-German influence of this country will be used to discredit Japan and to keep the United States from giving its approval to Japan's hearty co-operation in the war by throwing a great army into Siberia. Every influence which every pro-German in America can urge, through the press or otherwise, will be given to this campaign to create hostility and distrust of Japan and to convince our country that Japan should not be encouraged in its movement into Siberia.

On the other hand, we believe that every broad-minded American who realizes the tremendous interests at stake should heartily approve of encouraging Japan to take an active and aggressive part in this war against Germany through control of the Siberian situation.

Notwithstanding all that may be said in behalf

man would carry greater weight in Japan than Mr. Wm. H. Taft.

If President Wilson could see his way clear to appoint a commission composed of such men as Taft and Judge Gary and others, who could discuss every phase of diplomatic and metallurgical potentialities of the East, we believe that it would be possible to sweep away from the minds of the Japanese people any thought of latent hostility to the United States and that these two great nations could be allied side by side, working harmoniously through the years to come for the advancement of the world and the safeguarding of the present situation from the barbarism of Germany.

We cordially endorse the telegram from Mr. DeKalb, and we trust that every voice that was raised in this country in behalf of the United States giving encouragement to Japan to enter aggressively into the protection of the situation in Serbia may be raised at the present time so that President Wilson may know that the nation is back of him in this suggestion.

THE ONLY WAY TO END THIS WAR.

THERE is only one way to end this war, and it is our duty to follow that way to the limit of our ability; and that way, the only possible way to save millions of our men and to save our country and civilization itself, is to kill German soldiers, and to kill and keep on killing, for the more quickly and more fully we kill German soldiers, the fewer will be the number of American soldiers that they will kill.

Does this seem brutal? It is not. It is the only

road to end this war, and the only road to follow. Our supreme business is to win this war, and the only way to do it is to equip ourselves to the utmost strength of our resources to enable us to kill German soldiers. Let us make up our mind to this task and go at it with all the vim and energy that it is possible for us to develop.

These German soldiers are fighting us and killing our men. Gleefully and joyfully they are gloating over the destruction they have wrought as they have carried on their murderous campaign for four years. These German soldiers are not simply doing what the Kaiser tells them. They are doing what they themselves have been trained to believe is the thing to do. All Germany is possessed of the devil and by the devil; and all Germany is united in this awful war in which they have already killed millions and millions of soldiers of the Allies, and now are preparing to do their utmost to kill the loved ones that we are sending over. Unless we kill them, our own soldiers shall die, and our own country shall be destroyed, and the women and children of this land will be as ruthlessly slaughtered as were the women and children of Belgium and France.

Our task, therefore, is to fight. Fight with all the power that can possibly be developed through the fullest utilization of all the latent strength of the nation.

We might as well face the fact that this war is a war of extermination in which Germany is seeking to exterminate and conquer the rest of the world; and our only possible salvation is in killing

crop should turn out to be as big as anticipated, it would not be sufficient to fill up the vacuum by reason of the short crop of 1916, and he was urged not to promise lower prices, because it was quite certain that prices would continue high and people therefore would be misled.

Mr. Hoover has been doing a splendid work, but the study of the crops of this country had not been one of his specialties, and he was depending upon the unwise statements issued by the Department of Agriculture.

Bearing on this great shortage in corn, so serious that an adequate supply of seed corn becomes of prime importance, is a letter from Mr. William Wahking, a hardware merchant of Louisville, who, writing to Mr. Hoover, called his attention to this great damage done to the corn crop, and stated that the race horses of that section were being fed on good clean select shelled corn which should be saved for man's use and warning Mr. Hoover that while this select corn and also select oats were thus being fed to race horses, there was danger that the public would be fed on inferior quality.

Writing about the same time to Secretary McAdoo, Mr. Wahking, in discussing the same subject, referred to the race-track gambling business which was injuring the country and using a vast amount of money which should go into other purposes. He stated that at the opening day last year the attendance at the Louisville race-track was 25,000, and that the lowest bet which can be made at the track is \$2, and that there are seven races on each card. These races stay in Louisville for 30 days, then go to Lexington for 15 days, then to Latonia for 15 days and then in the fall the same thing is repeated at all three places.

Mr. Wahking suggested to Mr. McAdoo that if this race-track business could be stopped it would materially help to win the war.

This is in keeping with suggestions made some

tion, and that is to accommodate legislators who want to evade or postpone their plain constitutional duty." Nevertheless the influence of the liquor element was strong enough to force a referendum.

In its local columns the Sun told the story of the great fight that went on at Albany, under the big headline "Demon Rum on His Last Bat in the Empire State," and under this striking heading, which one might a few months ago never have expected to see in one of the great daily papers in New York, the following interesting story was told of the fight that was being made:

This week begins with the Demon Rum upon his knees to the Legislature.

Likely enough it will end with the Legislature grabbing the Father of Evil by the collar and the slack of the breeches and booting him down the front steps of the Capitol.

He's all in, all but down and out. Public Decency, refereeing the most dramatic fight at Albany since the repeal of the racetrack law, is standing a little to one side, cold and intent, ready to raise the right hand of absolute Prohibition, the new champion.

Father Time, watch in hand, is counting out the old master in syllables which are the tolling of funeral bells for the distilleries, the breweries, the saloons, the public and secret haunts of vice, the gangmen and the gunmen, the thieves and masterless men—for the whole Falstaff's army. The count is nearing 10.

And well the Demon knows it! What a change a week has brought in the pride of his demeanor! He came haughtily to the Legislature. He clinked his gold and shouldered decent men out of his path. He issued his will like a kaiser. He strode up and down the Senate and the Assembly like a German General in conquered States. He summoned his tatterdemalions to threaten the Governor, to ridicule Senator Hill and Assemblyman McNab, to laugh down or shout down reasoned argument.

By methods and tactics in which he never has been surpassed he whistled honorable men to his heel and bade them sing to his fiddle. For his first line of defense he set up the barb-wire entanglements of ancient and comfortable habit; of the natural and human desire

When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

enough Germans to prevent Germany carrying out its plan.

Then let us fight, and fight with all the strength that we can develop, and throw into the fight every ounce of mental, physical, moral, spiritual and financial power. That is our task to which Heaven has called us.

THE DISASTER TO LAST YEAR'S CORN CROP.

MORE than 1,000,000,000 bushels of last year's corn crop were ruined by early frost.

This has been known for some months, and the MANUFACTURERS RECORD has on several occasions stressed the importance of it to the country, but it was not until March 8 that the United States Department of Agriculture issued a statement showing that of the total corn crop of 3,159,000,000 bushels, only 1,905,000,000 bushels is of such a quality that it can be offered for sale.

This is the lowest percentage of good corn in any crop since 1883.

The Department of Agriculture reports that this vast amount of inferior or soft corn had to be fed to cattle and hogs at once in order to prevent its total loss.

The meaning of this disaster to the corn crop is too clear to be ignored. It means a desperately short corn supply until the next crop is gathered. It brings the available corn crop of the country very much below the yield of either of the two preceding years, and yet from early last fall the country was being misled by the optimistic statement of a record-breaking corn crop and of confident promises made by the Food Administration and by others of an abundant supply and of lower prices.

Last summer, in a public meeting in Washington, when Mr. Hoover was predicting very much lower prices for corn by reason of the promised large yield, his attention was called to the fact that even if the

months ago by the MANUFACTURERS RECORD that transportation should be absolutely forbidden to all race-track business as well as to all brewery and whiskey interests, and the more the matter is studied the more important it will be seen that the use of grain and of transportation and of labor for all of these purposes should be absolutely prohibited in these desperately serious times.

The disaster to the nation's corn crop throws a great responsibility upon the South to increase its acreage in corn.

THE GREAT FIGHT IN THE NEW YORK ASSEMBLY AGAINST THE LIQUOR INTERESTS.

SURELY we have not passed the day of miracles, for it does seem like a miracle to find one of the great metropolitan papers standing aggressively in behalf of the passage by the New York Legislature of the amendment to the Constitution in behalf of national prohibition. The New York Sun is the paper which is doing it. Editorially it takes the ground that "the Sun is for the ratification of the amendment and for its prompt ratification by the only possible ratifying authority, the Legislature of the State of New York."

This was in answer to the efforts of those who were trying to call for a special election on the subject. The Sun emphasized the fact that the resolution passed by Congress specifically said:

That the following amendment to the Constitution be and hereby is proposed to the States to become vested as part of the Constitution when ratified by the Legislatures of the several States as provided by the Constitution.

This settles the legal question as to whether the matter should be referred to the people, or whether a special election should be held on the subject and the Sun said "there is only one reason for open referendum of this question of Federal prohibi-

of mankind to be let alone in easy ways; of arguments sound only in their long time and thoughtless acceptance. For his second line of defense he made trenches of threats—threats personal to Senators and Assemblymen that wavered in their notions, telling them that he would drive them out of public life, injure them socially or financially, make them sorry they had ever been born. And for his third line he has erected bastions of gold-hard cash.

But every one of these defenses and protections has been broken or turned. Sophistry failed. Threats failed. Bribery will fail. The Demon finds, as this week begins, the week of his humiliation, that he is no conqueror at all. He begins to see with a sort of shocking comprehension that he is merely a boozy and broken-down pugilist of evil, beaten to his knees by the clean, young champion of social, economic and political progress. He is done for, and in his heart he knows it.

The old arguments that absolute prohibition—Federal prohibition—cannot be enforced; that the people do not want it; that it would result in a loss of millions to a State which needs a greatly increased income in war time; that it would affect deleteriously the administration of the schools and other public institutions; that it would be ruinous to real estate values—all these have been smashed or brushed into the dustpan. The old threats failed to terrify. A corruption fund of \$1,000,000 remains unspent.

Therefore, today John Barleycorn is appealing and pleading, not thundering commands or breathing defiance. His guard is lowering and his old chin is nearly open to the paralyzing blow which the forces of order and decency are aiming to send home. This blow will be the adoption by both Assembly and Senate of the Hill-McNab resolution ratifying the Federal prohibition amendment, which is the only sincere and workable anti-liquor measure which the Legislature has been considering.

Starting out with a program to beat anything and everything which threatened to abolish or diminish their profits, the liquor interests have been driven from one hope of compromise to another, and now are realizing that no compromise or evasion is possible.

Though the liquor interests were strong enough to force a referendum in New York, the Sun's story of the tremendous fight should stir every patriot in the country to array himself against this desperate, diabolical power which seeks to enslave the nation and which fights on the side of Germany.

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March 21, 1918.]

MANUFACTURERS RECORD.

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A Straight-from-the-Shoulder Statement About Germans and Pro-Germans.

MURPHY DOOR BED CO. OF ALABAMA AND TENNESSEE

Percy R. Baker, Pres. and Mgr.,
1428 North New Jersey Street,

Indianapolis, Ind., March 11, 1918.

Editor Manufacturers Record:

I have been intensely interested in your several articles recently along patriotic lines and otherwise dealing with some of the momentous questions now confronting us, but I think the recent article by Dr. Church of Pittsburgh has impressed me more deeply than almost any other of them.

Dr. Church is right, and Mr. Edmonds is right in his endorsement; what we need to do more than any other one thing, perhaps, is to take the firm stand that anything and everything German from now on is to be absolutely "taboo"—no goods of German manufacture ever to be bought or used; no German received in our homes or treated as a social equal; everything German looked upon with the utmost distrust and suspicion until, as Dr. Childs has said, the greatest term of contempt that can be bestowed will be to be called "German."

Throughout this section of the country—Indiana, Illinois and Ohio—the German element had been allowed to secure the ascendancy in many things, and especially in matters pertaining to the schools and the school boards. Many of the towns and cities, if not all of them, had either pro-German or German principals and superintendents, and it was the law that upon petition of 25 patrons of any school German was to be taught in the grades. In every school, years ago, these petitions had been filed and German was taught in compliance therewith. Just think of it, the grade schools, which should be the "melting pots" to amalgamate the foreign elements and transfuse them into whole-souled Americans, had been insidiously fixed to work for "kultur" and Kaiserism!

In this city the board for a long time, and until the past few months, was almost completely pro-German, and the city superintendent was Mr. Keller, who has now been summoned to appear before the Congressional investigation committee that is probing into the affairs of the National German-American Alliance. Even after the declaration of the war between our country and Germany, Keller kept a large picture of the Kaiser hanging over his desk in his office of Superintendent of the city schools.

On every hand we see the dirty, slimy trail of the minions of the Kaiser; the propaganda to discredit the efforts we are making; the insidious insinuation made to the ignorant that they and the poor are being made the "goat" by the educated and wealthy class, and in ten thousand other ways and manners that not even the nimble wits of the devil himself can begin to keep track of.

You are right when you cry out with vehemence for the carrying out of the death penalty for each and every spy and instrument of the Kaiser that can be run down and detected. I tell you it positively makes me sick—literally sick—to think of these hell hounds being brought to bay and then, instead of a drum-head court-martial and a firing squad in ten minutes, they are given "two years in a Federal prison." My God! how can anyone expect to stamp out these dastards with such methods? Do they care? Of course not; they simply laugh in their sleeves at us for "easy marks" and continue to ply their infamous calling with greater vigor and boldness than ever. And I am here to tell you, Mr. Editor, that as sure as the world rolls, unless the Government draws a tighter rein on these vermin and begins to mete out punishment to them adequate to their deserts, the people will take matters in their own hands and rend some of them limb from limb.

Do I want my boy stabbed in the back by one of these sneaking traitors, or my neighbor's boy, or any other good, brave American boy who is over there in France battling for all that is high and holy and worth living for, or busy here in the camps preparing himself to do a man's part when he does get over there?

Afraid? Yes, I am afraid—afraid of the rattlesnake, afraid of the rabid dog, afraid of the "hydrophobia skunks" of the desert, but above all I am afraid of any and everything Germanic; afraid of this great, huge, conscienceless, soulless, heartless, ruthless, horrible monstrosity that confronts us, more horrible by far than the slimy octopus, the fetid crocodile, the strangling serpent; more to be dreaded than the infection of the bubonic plague, the Asiatic cholera or any other of the death-dealing scourges in the shape of a disease that has ever ravaged the face of the earth; for while they have slain, they have done so without cruelty, without mutilations, without ravishing.

Go on in your good work. You are doing more good by your ceaseless crying out to the country to awake than you could by equipping and putting into the field a whole division of men. And may God bless and prosper you in it until this whole country is awake to the danger that confronts us and on fire with your zeal to do all and dare all until this horrible monster has been killed and cremated and its ashes so widely scattered that never again shall it lift its horrid head to terrify the earth.

PERCY R. BAKER.

We are glad to give place to this foregoing ring-

ing call to the nation to suppress pro-Germanism. It is stated none too strongly. There is not a word in it which is unjustified.

The people of this country who are giving to this war those who are dearer than life itself to them will not much longer permit pro-Germanism to run rampant, nor will they permit this Government to continue its mild methods of dealing with pro-Germans without a protest so vigorous that it will mean the mob spirit breaking loose and destroying those who utter one word in behalf of Germany. The mob spirit would be a disaster, but the mob

subcommittee obtain from Keller the names of the organizations in the Indiana branch of the alliance, the names of the members and persons participating in its activities, the names of its paid agents who have traveled through the State spreading German propaganda, his interest in the introduction of schoolbooks laudatory of Germany in the schools of Indianapolis, the facts of his birth, education, various residences and the reason for his seeking the presidency of the city's school board.

The text of the telegram to Senator New follows:

"Please communicate to the Senate Judiciary Committee making an investigation of the German-American Alliance, before whom Joseph H. Keller of Indianapolis has been summoned with the records, documents and papers of the Indiana branch alliance, the earnest request of the Marion County Council of Defense that the examination of Joseph H. Keller and his activities in connection with the German-American Alliance and the National Association of Commerce and Labor, a brewery and liquor organization, be most complete and thorough.

"Also to ascertain from Keller the names of the various organizations that compose the Indiana branch of the alliance, also the names of the persons residing in Indianapolis who sent telegrams to Senators and Congressmen protesting against the declaration of war by Congress for the protection of American rights and liberties.

"Also the names and duties of the paid agents of the alliance who traveled through the country spreading and forcing the teaching of German in the public schools. Also as to the preparation and introduction of so many textbooks teaching the propaganda of extreme Kaiserism in our schools.

"Also why, as president of the Indiana branch of the alliance, he made no protest against such propaganda as this from a school book (*In Vaterland*) used in many Indiana schools:

"Kaiser Wilhelm's first wish is to serve the German nation; the militaristic crown prince is greatly beloved by the German people; Germany must have a great army because it is surrounded on all sides by enemies; Germany is great because of the Bismarck "blood and iron formula;" the Germans have proved on many battle fields because they fear no one; the King of Prussia, Bismarck and Von Moltke, Germany's blood and iron welders, were great men; none of Germany's children love her so much as the Germans who have come to America; Germans who have left the fatherland must never forget the German tongue, but must hold it the dearest of all gifts."

"Also why, as president of the Indiana branch of the alliance, he never protested against such propaganda as the following uttered by G. J. Hexamer, president of the alliance, before 10,000 Germans in Milwaukee:

"We have long suffered the preachment that you Germans must allow yourselves to be assimilated; you must merge with the American people, but no one will ever find us prepared to descend to an inferior culture. Remember, you German pioneers, that we are giving to this people the best the earth affords—the benefits of German kultur."

"Also, did he protest because in the Chicago speller used since 1910, upon the only page allowed for personal eulogy, there is not found the name of Washington or Lincoln or any man who has battled for free government, but only the name of the Kaiser setting forth his claim to the esteem of the world and to the Kaiser is given the whole page."

"Also, the facts as to Keller's birth, education, places of residence and occupations while in the United States and why he came to seek a position on the Indianapolis school board and why he desired to be president of the board."

The letter from Mr. Baker and the telegram from the Marion County Council of Defense state with exceeding clearness some of the conditions which we face. Until the nation fully understands the reality of all these statements and their full bearing upon this war, and upon our future, we shall not do our part in saving ourselves from destruction.

There is danger that we may not think deeply enough on these questions; that the very iron of this awful hour of agony may not sink into our souls as it must do before we can stretch to the utmost the nation's power to make war. This is no time for sickly, sentimental sophistry; no time to feel anything but intense, bitter, unending determination to suppress Germany and pro-German activities wherever the pro-German may show his head, and if the Government will not do this, it is

What Will You Do?

The soldier must pay in suffering and death for liberty for you.

What will you pay?

The soldier gives up all on earth except honor to purchase liberty for you and your country.

What will you give up?

Your loved ones and country and all on earth that is worth living for are at stake.

What are you willing to do to save them?

The murderer and the outrager are striking down your neighbor's family and are starting for your loved ones. The soldier rushes in and offers his life to save them.

What are you willing to do to save them?

On April 6 the nation will ask for an expression of your patriotism. On that day it will want to know what you are willing to do to stand behind the soldier as he goes "over the top." It will ask you on that, the first anniversary of our entrance into war, how many Liberty Bonds, the best security on earth, you will buy. Do not wait for a long drawn-out campaign, but be ready on the opening day to stand in line, if necessary, to enter your subscription.

spirit will surely break loose, for it is already in evidence in many places, unless the Government takes drastic measures to suppress every evidence of pro-German activities.

This is the final life and death struggle, which means not only the death of our loved ones, but the death of our country itself unless we are able to master the fearful curse which is spreading over the world.

With Mr. Baker's letter, was enclosed a copy of a telegram sent by the Marion County (Ind.) Council of Defense, through its secretary, Col. Russell B. Harrison, to Senator Harry S. New, specifically asking Senator New to see that Mr. Joseph H. Keller, the former Indianapolis leader of the German-American Alliance and at one time president of the Indianapolis School Board, should be given a rigid cross-examination. The extract from the Marion (Ind.) paper was as follows:

The County Council of Defense requests that the

quite sure that the time is rapidly coming when patriotic men and women of America will do it.

Every man and woman of pro-German thought should be absolutely ostracised in family and social and business life. No honest-minded American man or woman should for a moment consider other than a despicable enemy, ready to stab in the back our soldiers, every man and woman who is not an out-and-out American in sentiment, and if they are pro-German in thought or word or act they should be imprisoned at hard labor or deported and sent back to Germany, or rather compelled to find a way to get to Germany at their own expense, or else pay the penalty in hard labor in building roads or doing other work essential to the welfare of the country.

We must throw to the winds any sentimental idea of any other treatment, because this war is unlike all other wars in human history and every ounce of our strength will be needed to save us.

BULLY FOR MISSISSIPPI!

THIS is what Mississippi has announced that it will undertake to do:

To furnish its full quota of able-bodied fighting men.

To go over its allotment in every Liberty Loan and War Savings Stamp Campaign.

To stamp out treasonable rumors, words and acts as it would contagious, death-bearing diseases.

To observe to the letter the regulations of the food administration in every home and public dining-room.

To produce sufficient food and feed—corn, hogs,

RANK BOLSHEVISTIC OR SOCIALISTIC TEACHINGS HEADING FOR NATIONAL RUIN UNLESS CHECKED.

ONCE upon a time a blacksmith placed over his shop this sign: 'Horses shod by a horseshoer.' Here certainly was a sign worth pondering. A man who knows what he is about is worth cultivating. One summer in the Big Horn Mountains we had a cook who did not know what he was about. He was a plumber from St. Louis. That, too, is worth pondering. But one may pay too much to the horseshoer and too little to the cook. If one is to set up for a horseshoer, by all means let him know how to shoe a horse, but let him not overcharge. In other words, we can pay too much for efficiency.

"Efficiency by all means, but if the choice be between efficiency and the democratic spirit of co-operation among willing workers, let us have co-operation and willing workers."

Some of the statements made in this brief extract from a speech are indicative of a mental wobbling, or inability to see clearly, which would do credit to a professional Bolshevik, amazing to find in a great college president. Just what relation to the questions at issue the plumber-cook bears, we have not been able to fathom; why anyone of intelligence should employ a plumber who knew nothing about cooking to do the cooking, we have not been able to fathom.

The extracts quoted are from a recent speech by Dr. Garfield to the alumni of Williams College. They indicate an entirely false basis of reasoning, and a false basis of ordinary business judgment.

Dr. Garfield suggests that it is a very good thing to know that horses are to be shod by a horseshoer, but if the horseshoer is going to charge too

a par with Dr. Garfield's suggestion that all industrial plants closed last winter by his fuel order should pay their laborers during this enforced idleness. These statements are indicative of a socialist frame of mind which finds an apt illustration in that of the horseshoer, and a democratic spirit of co-operation as preferable to efficiency. Certainly no man who thinks straight and is not afflicted with socialist or Bolshevik ideas—practically one and the same thing—would ever have uttered such a sentence or used such an illustration.

Through the teachings of such men as Dr. Garfield, and many others of socialist thought, who apparently do not themselves comprehend the meaning of their teachings, they are leading this country straight to the chaos which exists in Russia, however unwittingly they may be doing so, and rarely has a public man in such a crisis made a statement which should set all thinking men to studying the danger of the hour more than this statement of Dr. Garfield's that a "democratic spirit of co-operation" among people who know nothing whatsoever about shoeing a horse would be preferable to the efficiency of a horseshoer who knew his business if the latter charged for his efficiency.

The more one studies this statement the more utterly amazed he becomes when he contemplates the danger of such teachings in this day of Bolshevik activities which are spreading to high places in Washington, which are filling many of the newspapers of the land with false doctrines, and which are today threatening the life of this country.

Russia, the great giant of Europe and of Asia, now lost to all semblance of government, with millions starving in a land of limitless agricultural capacity, with only 5 per cent, it is estimated, of its industrial power being utilized at the present time, with revolutions and counter-revolutions, with murder from one end of the land to the other, a

Q When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

poultry, milk, potatoes—in every community for the needs of that community.

To lay in sufficient wood during the summer to forestall a fuel shortage in the winter and to release coal for trains and ships.

To contribute its part toward the Red Cross, Y. M. C. A. and Y. W. C. A. work.

To sacrifice and keep cheerful.

Here is a program of consecration to patriotism which other States in the Union may well look up to as a shining example.

It embodies the whole measure of devotion, and when every State has been aroused to this pitch of enthusiasm there will be no question about which side will win the war.

The report of Mississippi's first war conference is presented in our news columns, and it is a reassuring message to the country at large. Secretary Houston touched on some very pertinent subjects in connection with the war and said some things which may well be seriously pondered. However, the war enthusiasm of the people was the strong feature of the meeting. In a private note to the editor our correspondent at Jackson writes:

This was a rousing meeting we had—the most inspiring thing that has happened in Mississippi since the war began. We were slow about waking up down here, but the awakening stage has passed, and believe me, we'll be heard from during the remaining days of the war! I have never seen anything more touching than the reception accorded the young French lieutenant who spoke here. He was France herself to these folks, and they proved their love for France by the way they listened to his speech.

I knew these people would make up their minds to win the war eventually, and they have done it. It is almost as good as being on the other side to work here with them.

Again we say, "Bully for Mississippi!"

much for his work, we had better do with somebody who knows nothing about horseshoeing, or, as he puts it: "In other words, we can pay too much for efficiency." In that statement Dr. Garfield throws a great illumination upon his conception of the way of doing things.

An inexperienced man should never be permitted to drive a nail in a horse's foot. No horse owner, especially no one owning a horse worth calling by that name, would for a moment consider risking the horse's feet and the horse's ability to work and the horse's life by allowing an incompetent horseshoer to drive a nail into the horseshoe.

If there is one thing in which efficiency is absolutely necessary, regardless of the cost of the work, it is thoroughness in the work of the horseshoer. An inefficient horseshoer will mean the ruination of the horse, his temporary, if not his permanent lameness, and possibly his death, and yet Dr. Garfield would teach that "a democratic spirit of co-operation" by people who know nothing in the world about shoeing a horse, is better than a professional horseshoer if he charges a little more than the Doctor thinks proper! We wonder if Doctor Garfield ever owned a horse and watched the care with which a skillful horseshoer studies every angle of the foot and of the shoe. A good horseshoer is a professional artist, a skilled mechanic of the highest order.

Dr. Garfield's statement that "Efficiency by all means, but if the choice be between efficiency and the democratic spirit of co-operation among willing workers, let us have co-operation and willing workers," is Bolshevik and socialistic to the extreme. There might be an enthusiastic burst of "the democratic spirit of co-operation" among hundreds of people who would wish to shoe a horse, but if none of them know how to shoe a horse their number and their "democratic spirit of co-operation" would be without avail, and every nail they drove into the horseshoe would be dooming the horse to destruction.

This wobbly socialistic or Bolshevik talk is on

great country wallowing in its own blood, is wholly an outcome of the work of the Bolshevik teachers, some of whom have lived in this country and planted the seed of their doctrines here; and nowhere have we seen a statement from any of these leaders more utterly fallacious than the one which we have quoted from Dr. Garfield, typical of the speech from which it is taken. The time has come to stop preaching and practicing Bolshevik doctrines of inefficiency or the end will surely be national ruin.

STOP THE VALUATION OF RAILROAD PROPERTY.

RESOLUTIONS adopted by the Philadelphia Bourse favoring the passage of a bill introduced in Congress to discontinue the physical valuation of railroads have been forwarded to W. G. McAdoo, Director-General of Railroads, and also to the Pennsylvania members of Congress. It is urged that to pursue this work would cost more than \$50,000,000 at a time when the money could be employed for much more important purposes, and that the men doing it could also be used in other branches of railroad service where their labors would directly help toward winning the war. Moreover, it is remarked that even if the valuation was completed it could never be a just basis upon which to establish railroad rates because of the different construction and operating conditions on lines in competition with one another.

The repeal of the physical valuation law would release engineers, clerks and others whose efforts are seriously needed in the regular departments of railroad work so that their aid could be felt immediately in the grave transportation problems which are up before the men now charged with the effective administration of the lines, and it is a pity that this realization of the futility of the valuation plan was not attained long ago.

March 21, 1918.]

MANUFACTURERS RECORD.

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THE SOUTH OVERCROWDING RAILROAD FACILITIES WITH FOODSTUFFS FOR THE NORTH AND WEST.

THE extent to which the South is helping to feed the nation is shown in the estimate that Florida will this season have at least 50,000 carloads of foodstuffs, especially early vegetables, such as cabbage, lettuce, celery, potatoes and other things absolutely essential to feeding the country, available for shipment to the North and West.

But what Florida is now producing is a mere bagatelle as to the almost limitless amount of foodstuffs which can be produced. There are millions of acres of available land for the raising of vegetables in this State never yet put to the plow; and there are many thousands of people in other sections of this country who for their own good and the good of the country and of the world, in this food crisis, could profitably engage in the large production of foodstuffs in Florida.

It is difficult to set any limit to the amount of vegetables and other foods which Florida can produce with increase of population and the utilization of the vast stretches of land suitable for every kind of farm product. In this respect Florida itself is one of the nation's greatest assets, and the 50,000 carloads of foodstuffs which it will this year ship can in the future be increased to ten times that amount without reaching the limit of the State's resources.

But Florida growers are at present hampered by inadequate transportation facilities. There is a great cry from every vegetable-growing section of the State about the delays in shipments which are hampering the work of the growers and lessening to some extent their enthusiasm for increased food production.

From various authorities there has been from

to what action can or will be taken to overcome this situation, as Florida food producers are anxious to hear what can be done to meet the acute situation. Is it true that locomotives are overloaded, forcing them to make slow time, and is this due to inefficiency or to impossibility of roads providing sufficient number of locomotives to meet actual needs of Florida food growers?

RICHARD H. EDMONDS.

In reply to this Mr. McAdoo promptly wired that Regional Director Markham of Atlanta is now arranging schedules which he hopes will meet these difficulties.

One of the points made by some of the growers in Florida is that shipments of bananas from New Orleans to the West are carried in through trains which it is said have the right of way even over passenger trains; and the suggestion has been made that bananas are not as essential as a foodstuff as are the products of Florida. Another suggestion has been made, and industriously cultivated by some people, that the railroads themselves are not doing their utmost to remedy this situation because of Governmental control. This we believe is an absolutely groundless charge against railroad management and should never have been made. Any railroad man, operator or train hand, who because of Government control lessened his effort to produce the best possible results in transportation would be guilty of worse than treason, and should be punished as severely as an out-and-out traitor. But we have no thought that any railroad operator in the country is so bereft of honor and honesty and patriotism as to be guilty of such a crime; nor do we believe that any railroad employee would seek to hamper railroad activity because of Government control, unless he were a pro-German seeking directly to injure this country to the extent of his ability.

The MANUFACTURERS RECORD feels assured that Mr. McAdoo and Mr. Markham will know how to

UNIVERSAL MILITARY TRAINING.

By GEORGE WHARTON PEPPER, Philadelphia.

If you and I are to be transformed by the war we must see to it that the ascertained value of military training and service is permanently incorporated into our educational system. As I look back over my life I see much to shudder at and much, much to amend. But of two things I am really proud. One is that when Belgian neutrality was violated, in August, 1914, I publicly advocated the immediate severance of diplomatic relations with Germany, and the other is that, beginning with September, 1914, I addressed myself to the advocacy of universal military training and service as indispensable to national preparedness. It seemed to me then inevitable that we should be drawn into the war, and I longed for the nation to be ready and not unready when the time should come.

It is not worth while now to waste vain regrets over our national failure to listen to Lord Roberts and to General Wood. When the time came for us to go upon the stage the Allied audience gave us a friendly round of applause—and then waited for us to get in some licks that really count. We are doing our best to justify their confidence, but they will have to be marvelously patient with us. It will be another year before we can become an important factor in the military situation, and in the interval there will be waste of treasure and precious blood and of American prestige.

These things must not embitter us now nor make us destructively critical, but we must not forget

Buy Liberty for Yourself and Your Country by Buying Liberty Bonds

time to time much talk about the necessity of the South feeding itself and not calling upon transportation for bringing foodstuffs from other sections. But here is one Southern State offering 50,000 carloads of foodstuffs for shipment to other sections, without which there would be a tremendous shortage of these essential foods.

Similar conditions exist to a large extent in other portions of the South, where the increasing production of vegetables and fruits for Northern and Western markets is completely changing the old order of things to a new and better order.

The situation in regard to lack of adequate transportation for Florida vegetables has recently been so acute that the Editor of the MANUFACTURERS RECORD on March 14 sent to Director of Railroads McAdoo the following telegram:

Daytona, Fla., March 16.

Hon. Wm. G. McAdoo,
Director of Railroads,
Washington, D. C.:

From all parts of Florida reports come as to the delay in the handling of vegetables and other perishable products for Northern and Western markets. It is estimated that Florida will this year produce 50,000 carloads of foodstuffs for Northern markets, but growers are reporting heavy losses due to delay in transportation and are discouraged in undertaking to increase food production for the nation's needs. The claim has been made that locomotives are overloaded and are undertaking to haul much heavier loads than they can possibly deliver in the East on time, thus seriously injuring the entire industry and lessening the ability of Florida to provide foodstuffs.

It has been suggested that the South would not be doing its duty to the nation if it did not produce all of its own foodstuffs, having thus to call upon the railroads for transportation to bring in food. But here is one State in the South which is this season producing about 50,000 carloads of foodstuffs with which to feed other sections who must seriously suffer unless Florida and other vegetable-producing parts of the South feed them. These perishable vegetables, so essential to the food supply of the East and the West, can be produced in ever-increasing quantity in the South, provided adequate transportation for prompt delivery can be secured. But the production of this kind of foodstuff will be seriously hampered to the great suffering of the people of the North and West unless quick transportation is available.

Can you wire me any information on the subject as

handle the situation now that they are investigating the problem, and that to the extent of railroad facilities the shipment of foodstuffs from Florida and other points in the South will be expedited to the benefit of the consumers and the growers alike.

In regard to the charge that there has been a lack of loyalty and patriotism on the part of any railroad people, which we believe to be an unmitigated slander, we are glad to have the following extract from an address made by President William Sproule of the Southern Pacific before the San Francisco Transportation Club, touching on this unjust reflection upon railroad men. President Sproule said in part:

There is no group of men anywhere in the world whose loyalty, patriotism and sense of obedience is greater than that of officials of every grade in American railroad life. I have read with dismay that the charge has been made that the railroad heads of this country do not wish Government control of the railroads in this time of war to be successful, and are trying to prevent its success. I have faith that such a traitorous charge has not found lodgment in the public mind, for there is no group of men anywhere in the world whose loyalty, patriotism and sense of obedience is greater than that of officials of every grade in American railroad life. I can say this as a railroad man to railroad men who have given their lifetime to the work.

The charge is as damnable as it is deceitful and is a gross calumny upon the railroad men of this great country. I adjure you, even as I lay the duty upon myself, to stand firm against touch or taint of disloyalty. In this time of the nation's trial let us stand firm against even the carping criticism of the Government in which it is so easy to indulge without thinking of its evil effect. Any country that is not loyal to its Government in times of stress is not a nation.

Let us help in every way we can. The war must be won. It is the privilege of each one of us to do his share to achieve that great and imperative result.

them. Our chief concern now should be that we shall not suffer ourselves ever to be found in so humiliating a position. We must not allow ourselves to think of military training as a war measure or as a sort of temporary evil, but that we shall perceive in it those elements which make it a permanent and necessary corrective to the dangers of democracy. Compulsory military service in an autocracy is predominantly evil. Compulsory military service in a democracy is essential to check excessive individualism and to preserve respect for constituted authority.

Our real danger in this respect lies in the fact that many of our most influential public men are in this sense pacifists—that they are blind to the educational value of military training, and will be quite ready, I suspect, to destroy the whole great structure in the reaction which will follow the war.

If it is not fair to our public men to criticise them for failure to foresee coming events and to prepare for them, we may at least declare it unpardonable if a man does not learn from the event that has actually occurred. Quite apart from the fact that military preparedness is essential to the preservation of democracy is the demonstrative fact that military training is actually transforming the young men of the United States. Appeal to your own experience; for every one who is harmed, 99 are having the nonsense knocked out of them.

You and I must consecrate ourselves to the great task of securing for future generations of Americans the factor which under our very eyes is making lion's whelps out of lads who in too many instances were threatening to degenerate into a litter of mongrel pups.

THE MEETING OF THE AMERICAN ELECTROCHEMICAL SOCIETY IN THE SOUTH AND ITS IMPORTANCE TO THE NATION.

REALIZING the great need of giving to the members of the American Electrochemical Society the best possible opportunities for seeing the Appalachian South in the limited time at their disposal, and knowing that this could not be done except through a special train in order that not a moment's time should be lost, the MANUFACTURERS RECORD recently wired to Director of Railroads McAdoo as follows:

The American Electrochemical Society, representing the great interests using water-power heavily for the production of many chemicals and products absolutely essential in metallurgical and kindred work, desires to make a special trip through the South with a view to the utilization of Southern water-powers because Niagara and other Northern water-powers have already reached the limit of service. The trip can be made by the organization as a whole only by special train, on which the annual meeting will be held, in order to enable its members to visit a large number of hydroelectric developments and possibilities in Appalachian South, down to Alabama. Application for special train has been made by Southern road and to you. Southern Railway advises it can handle train if authorized by you. This trip is of vital importance to the nation, as the American Electrochemical Society represents the great electrochemical industries of the country, upon which our war-making ability depends. Trust you can grant permission of special train.

Mr. McAdoo's office promptly wired suggesting the question be taken up with Regional Director Markham, and the matter was laid before him by wire and letter, and a prompt reply was received, stating that he saw no reasons why the arrangement could not be made. This has now been done, and the special train, which was so essential to the success of this movement, will carry through

interesting one, but also one which will go far to educate some of our Northern members as regards the wonderful possibilities in the South for electrochemical developments. Your co-operation is indeed a valuable asset to us, and we shall try to do all we can to help you make the campaign you have started in the MANUFACTURERS RECORD a successful one.

"COME WITH ALL YOUR MIGHT AND SPEED" IS THE APPEAL FROM FRANCE.

THIS is a message sent to America by one of the leading military authorities through Charles H. Grasty of the New York Times. After discussing what America has done and how much it is appreciated, this military leader, whose name Mr. Grasty was not at liberty to divulge, asked him to say to America:

I appreciate, as all France does, how much America has done. But you are a people without limitations in either conception or execution. You can accomplish the impossible when you set yourselves to it. You must do that now.

It is not enough that your soldiers are fighting and shedding their blood at our side! Not enough that you are moving splendidly with your limitless resources in men and material. You must do better still. **You must come with all your might and speed.**

Think of yourselves as under an immediate, terrible and personal menace, as if a barbarous, cruel invasion were coming to occupy your land as it has already devastated ours. That is what it means, and you will not be doing your utmost until you see and feel it in these precise terms.

This message comes from the heart of a man who has seen what the barbarism of Germany means, and it comes through a man who from the

FAITHFUL UNTO THE END IS NOW OUR TASK.

SIR GEORGE REID, ex-Premier of Australia, who is in New York on his way back to England after an extended lecture tour in this country, said yesterday that, since the outbreak of war in Europe, he distinguished two President Wilsons, and it was in the supremacy of the second over the first that he based his great hope of the defeat of Germany.

"In the fifty addresses which I have delivered in this country," said Sir George, "I have been brought in contact with a large number of private citizens, with the result that I believe I have found a solidarity about America's share in the war which is, I confess, entirely beyond my expectations. The United States had no trouble in digesting the splendid emigrants who came to this country in the early days, down to thirty or forty years ago, but it is impossible to shut one's eyes to the fact that there are in this country at present millions who have not become Americans at all. Remembering that public opinion, as far as one can gauge, is marvelously loyal to the President's lead, and there is a sound desire that the mighty energies which the country possesses be brought heart and soul into the mighty struggle.

"The one man in the world upon whom responsibility depends is President Wilson. His record in this war is not one that is free from blemish. He is a wonderful phrasemaker, but for the first two years of the European war his phrasemaking was by no means as satisfactory as it is now.

"Will President Wilson remain stanch to the end? Will the devilish ingenuity of Germany create some false situation appealing to the former President Wilson if not to the latter?

"I rejoice to observe that your illustrious President is now doing something more than making beautiful phrases. He is making glorious history for the country and for the human race. That God strengthen his hands and make him the greatest man known in liberty's struggle is the wish of every sincere lover of freedom throughout the world."—New York Times.

We may count that the "devilish ingenuity of Germany" to which Sir George Reid refers will do its utmost in every way possible and everywhere in this country, but we believe that President Wilson is more and more coming to realize that the

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the Appalachian South many of the most noted electrochemists in America, men upon whose judgment depends the investment of many millions of dollars, men upon whose work has been based the creation of industries which have become absolutely essential to the metallurgical and chemical industries of the nation. Many of the great scientists who are to participate in this trip will for the first time have a personal opportunity of seeing some of the water-power potentialities of the South. They will be able to see what has been done and what yet remains to be done.

It is to be regretted that this trip cannot be extended far out through the South and Southwest, into Arkansas and Texas and Oklahoma; but for the time being every energy of these men must be concentrated upon increasing the output of chemicals and the electrochemical products which are so essential to the winning of the war, and the utmost stretch of time at their disposal is barely enough to enable them to make this brief special train trip through the Appalachian South, down as far as Alabama.

The holding of this meeting in the South is only one more illustration of the fact that the scientists of the country, the men who are highest in the industrial and chemical interests, are more and more realizing that the South is the nation's greatest undeveloped asset, and upon the development of this section will rest the winning of the war.

The MANUFACTURERS RECORD rejoices that Director-General McAdoo and Regional Director Markham so quickly recognized the importance of giving these scientists the facilities for studying the South for the nation's good.

In connection with the plans for the Southern meeting of the Electrochemical Society, Dr. Colin G. Fink, president of the Society, writes the MANUFACTURERS RECORD:

I appreciate very much indeed the deep interest you have taken in the coming meeting of our society. I feel certain that we can make this meeting not only an

very beginning of the war in Europe sought to arouse this country to the need of preparedness. Mr. Grasty, who many years ago was one of the most valued members of the MANUFACTURERS RECORD's staff, has for the last 20 years been a conspicuous figure in the journalistic life of the country. Shortly after the beginning of the war in Europe he went abroad to make a personal study of conditions. He came home tremendously impressed with the need of preparedness on our part. In a striking interview in the MANUFACTURERS RECORD of December 16, 1915, he outlined the conditions that were prevailing here and abroad, and urged with all the force at his command that we should get ready before it was too late. Through other publications and through public speaking he continued this campaign, until he was called from this work to a position of great responsibility as an official of the New York Times, and for the last year or two he has been in Europe representing that paper. He has been in closest touch with the leaders in England and France, in Governmental work and at the battlefield, and he has been able through this intimate touch with the activities of Europe to present every phase of the situation.

The message which he now cables to America should sink deep into the hearts of our people, for it is indeed true that we must go with all our might and speed into the contest in Europe, or otherwise the contest will soon be upon our own shores, and with our country wholly unprepared to meet it.

Go we must, and with a speed surpassing anything which we have yet put forth. This is the overwhelming need of the hour.

only thing left for this country to do is to fight, and fight to the end. We believe that the mightiest work which President Wilson or any other man on earth could now do would be for Mr. Wilson to follow the suggestion made in the MANUFACTURERS RECORD last week and make a speaking campaign from the East to the far South and across to the Pacific and then through the Central West, and from the rear platform of his car and in every important town or city visited speak with all the power of his awakened strength to bid this country prepare to fight.

A ringing war message, straight from the heart, reiterated over and over, from one end of the country to the other, calling the nation to war, delivered directly by President Wilson to the millions of people who would gladly hear him, would settle at once every question as to the nation's subscribing to Liberty Bonds, to the nation's concentration of work upon ships and food and munitions.

Here is the greatest opportunity ever given to any man in the history of this or any other country to do a tremendous work in this crucial hour of human history.

Five Stars in His Service Flag.

CEPHAS C. BATEMAN, Chaplain Fourteenth United States Cavalry, Del Rio, Tex.

I am still waiting, hoping that it may fall to my lot to go "over there." I have five stars now in my service flag—two sons and two sons-in-law—besides myself wearing the uniform of Uncle Sam. None of us so far have gone, but one son and one son-in-law will go very soon.

It is an awful war, and the end of it no man can foresee. But when the end does come, as come it must, I feel quite sure that mankind will never again permit a group of crowned heads and dead heads to make such another assault upon civilization. I think Harold Bell Wright, in his article "The Sword of Jesus," has put the case as it should be put.

In Feeding Europe We Have Been Enriching Ourselves

During the three calendar years 1915 to 1917, inclusive, the value of foodstuffs shipped from the United States, and mainly to the Allies, amounted to \$3,397,145,654, or considerably more than double the amount shipped for the three years from 1912 to 1914. While the quantity of foodstuffs exported considerably increased, a very large proportion of this enormous increase in value is due to the higher prices which the Allies have been paying to us for foodstuffs as compared with the pre-war period. Flour exports, for instance, during the three years ended with 1917 average \$7.30 a barrel, or a gain of \$2.57 per barrel, an increase of considerably more than 50 per cent., while the average price of wheat increased 60 cents a bushel, or almost exactly 60 per cent.

These gains in flour and wheat are but typical of the gains through the entire list of foodstuffs sent from this country to other countries. American farmers have therefore received an enormous increase in the price of their products shipped abroad during the last three years as compared with the price prevailing prior to the war.

By way of illustrating the vital importance of the service which has been rendered the Allied nations by the United States since the beginning of the war in the supply of foodstuffs, United States Food Administrator Herbert C. Hoover has recently issued an exhaustive statement setting forth the values of these shipments in various forms calculated to appeal understandingly to the American people.

Touching very briefly on his tabulated statistics, it

country to plume itself upon its altruism and philanthropy. Not that Mr. Hoover intended to produce this feeling, but there has been a tone apparent from time to time calculated to introduce the idea of a charity contribution in all of this vast outpouring of America's material resources for her friends and Allies across the Atlantic.

There is nothing that could possibly be farther from the truth than this. For the moment it is not held in mind that Great Britain, France and Italy were the bulwarks that prevented the tide of brutal autocracy from submerging the free nations of the earth, including those on the Western Hemisphere. Apart from that truth—the one that should never be lost sight of at any time—there is the further fact that not an ounce of foodstuffs has gone across to the Allies for which a much greater price has been paid than was received for the same amount, whatever the commodity might have been, during the months that preceded the outbreak of the great war.

Presented in their most conservative form, the following comparisons are given of average prices for the various kinds of foodstuffs exported for the three years preceding the war and for the three years since the war began. In fact, the division is not so clearly indicated as this, the first period representing the averages for the years 1912 to 1914, inclusive, and the second period for the years 1915 to 1917, inclusive. This form of comparison will tend to minimize the differences in prices due to war conditions rather than to magnify them.

EXPORTS OF FOODSTUFFS, CALENDAR YEARS.

	1912 to 1914, inclusive.		1915 to 1917, inclusive.		Average prices, 1915 to 1917, inclusive.
	Quantities.	Dollars.	Quantities.	Dollars.	
Total value.....	\$1,525,682,961			\$3,397,145,654	
Principal Articles:					
Corn, bus.....	91,892,806	\$61,071,446	80,665	153,981,523	\$158,356,729
Cornmeal and corn flour, bbls.....	1,169,781	4,098,230	.59	2,123,146	13,763,538
Oats, bus.....	70,715,822	32,209,187	.47	304,672,671	183,407,728
Oat meal and rolled oats, lbs.....	86,568,351	2,916,360	.034	413,425,500	17,142,371
Rye, bus.....	10,316,227	9,496,792	.92	41,728,402	59,913,216
Rye flour, bbls.....	63,854	293,787	4.69	406,761	3,151,285
Wheat, bus.....	335,025,435	341,922,399	1.02	466,177,581	754,966,837
Wheat flour, bbls.....	35,667,820	168,580,162	4.73	43,961,004	321,127,194
Meat Products:					
Beef Products:					
Beef, canned, lbs.....	43,337,578	\$6,477,859	\$0.149	189,610,389	\$41,341,914
Beef, fresh, lbs.....	47,298,138	5,770,694	.122	660,29,203	87,349,630
Beef, pickled and other cured, lbs.....	77,669,501	7,316,564	.094	147,540,417	16,859,770
Oleo, oil, lbs.....	280,237,297	31,157,283	.111	226,489,313	31,242,903
Oleomargarine, lbs.....	8,559,206	897,509	.105	16,610,033	2,359,268
Tallow, lbs.....	67,203,535	4,199,251	.062	49,412,012	4,671,690
Total beef products, lbs...	524,305,255	\$55,819,160	\$0.106	1,289,562,367	\$183,725,175
Hog Products:					
Bacon, lbs.....	589,086,126	\$77,038,028	\$0.131	1,695,217,455	\$279,637,867
Hams and shoulders, cured, lbs.....	490,128,518	67,210,811	.137	796,990,828	136,733,405
Lard, lbs.....	1,469,288,104	161,476,769	.11	1,251,295,361	179,740,700
Neutral lard, lbs.....	11,666,148	13,307,217	.112	72,650,096	9,705,479
Pork, canned, lbs.....	11,622,927	1,631,662	.14	20,581,162	4,604,790
Pork, fresh, lbs.....	7,041,314	895,940	.127	128,719,406	19,731,762
Pork, pickled, lbs.....	145,363,900	15,346,694	.106	153,401,163	19,671,878
Total hog products, lbs...	2,831,197,037	\$336,907,121	\$0.117	4,118,255,477	\$649,825,881
Lard compounds and other substitutes for lard, lbs.....	200,779,835	\$17,853,499	\$0.089	163,991,737	\$20,032,392
Mutton, except canned, lbs.....	13,712,692	1,507,617	.11	12,345,986	1,712,819
Sausage, canned, lbs.....	20,818,769	2,999,724	.144	16,791,544	3,361,253
Sausage, all other, lbs.....	83,070,400	12,199,215	.147	26,605,296	6,610,887
Sausage, casings, lbs.....	8,297,151	*719,828	.067	43,732,875	9,150,195
Stearin from animal fats, lbs.....	11,639,550	.....	.....	38,368,697	4,687,610
All other meat products.....				28,696,379	.122
Total meat products, lbs...	3,682,181,139	\$439,645,714	\$0.119	5,706,913,979	\$907,902,591
Butter, lbs.....	11,903,806	\$2,942,913	\$0.262	51,699,955	\$15,473,439
Cheese, lbs.....	9,458,045	1,555,394	.164	170,555,891	32,686,065
Milk, condensed and evaporated, lbs.....	57,987,219	4,954,462	.065	723,840,691	75,275,317
Sugar, refined, lbs.....	520,858,007	23,681,301	.045	3,550,963,405	197,832,173

*Figures are for two years and six months, beginning July 1, 1912.

is found that from July 1, 1914, to January 1, 1918, the United States exported to the European Allies sufficient food to furnish complete yearly rations for 57,100,933 people. In addition, there was a surplus of protein capable of supplying this portion of the diet to 22,194,570 additional men. In the distribution Russia got very little. The largest amounts went to the United Kingdom, although in the case of certain commodities, such as oats, oleomargarine, and corn oilcake and meal, France received more than any other country, while Italy was the largest recipient of corn oil and syrup.

The natural tendency in the face of the full output of figures afforded by Mr. Hoover would be for this

A single glance at the table with respect to any one item will show that there has been an increase in the final three-year average of prices as compared with the three-year average for the pre-war period. It matters not where the eye falls, the result is the same.

As already indicated, the object was to present averages in their most conservative form. For the pre-war period the averages do not depart greatly from the ruling prices for any given month in the entire period. It is by no means the same with the averages for the final three-year period as compared to the later months of the war. Here the prices at the present time are in most cases far above the three-year average, which fur-

ther tends to set at rest any throb of excess sentiment as to our philanthropy in coming to the rescue of the Allies. We have been paid in good hard cash for it all, and the prices are not getting less as time goes on.

To illustrate the point just made, the average export price of wheat for the three years of 1912 to 1914, inclusive—\$1.02 per bushel—is made considerably higher than would otherwise have been the case through the inclusion of the closing war months of 1914 in the period, during which months stiff advances in wheat prices were experienced over previous figures. Prior to that time the fluctuations had been slight. For the three years of 1915 to 1917, inclusive, the table shows the average price of wheat as being \$1.62 per bushel. But during this period there has been a marked progress in the export prices for the different months, although numerous fluctuations are encountered, from a lowest of \$1.14 in October, 1915, to a highest of \$2.72 in June, 1917.

Evidently concerned with the possibility of a mistaken opinion being obtained from the publication of the figures showing the astounding contribution of America to the Allied cause in the way of foodstuffs, Mr. Hoover followed his earliest statement with another, designed to offset any such erroneous conceptions. The following quotations from Mr. Hoover's report indicate for the leading cereals a greater advance in prices since the pre-war period than is shown in the larger table prepared especially for the MANUFACTURERS RECORD, although the reasons for the apparent discrepancies have already been sufficiently explained. Said Mr. Hoover on the general subject of prices:

"There is considerable misapprehension in the country as to the return which the farmer is getting for his different grains. Wheat now brings the highest return to the farmer per bushel of any cereal crop, as it usually did in pre-war times.

"The following tabulation of the prices received by the farmer for the different cereals has been compiled from data published by the United States Department of Agriculture, and available to anyone who cares to verify the facts for himself:

Cereal.	Average price received by farmer during 3 pre-war years (per bushel).	Price received by farmer now (per bushel).	Percentage increase of pre-war price.
Wheat	\$0.869	\$2.006	131
Corn .....	.665	1.388	109
Oats .....	.404	.787	105
Barley .....	.642	1.319	105

"From these figures it is clear that the price of no other grain has advanced so much respecting net return to the farmer as compared with pre-war conditions as has that of wheat. Corn comes the nearest, with 100 per cent. increase to the farmer, as against 131 per cent. advance in wheat. The transportation difficulties have operated to create higher prices to the consumer because it has not been possible for the railroads to get grain to primary markets as fast as the demand for export and domestic use could and would have absorbed. This has resulted in maintaining an artificially high differential between farmer and consumer."

Obviously, the purpose of Mr. Hoover was to make clear to the farmer that price-fixing in wheat, resorted to because of many peculiar conditions connected with the production and distribution of that highly important cereal, has not worked to its disadvantage as compared to the ruling prices for other cereals, all of which show marked advances, but none so great as for wheat.

Throughout the entire field of foodstuff exports the same tale is presented. At no time has there been the slightest disposition among the Allied peoples to withhold their gratitude and appreciation from the American people for parting freely with the food raised in their own country, or from the American farmer for what he has done in the past, as well as for what is still expected of him. But they, too, have done their part, without call for praise. It is not conceivable that any American, farmer or citizen, would want to claim credit for more than is due him. Especially inappropriate would it become to have him advertised to the world as a philanthropist when he is getting more for his foodstuffs in the world's markets than ever before in its history.

Wooden Shipbuilding Difficulties Apparently All Cleared Away

MODIFICATION OF FERRIS DESIGN, PERMITTING LAMINATED CONSTRUCTION, AND APPOINTMENT BY JOHN H. KIRBY AS LUMBER ADMINISTRATOR COUNTED ON TO GREATLY SPEED UP CONSTRUCTION IN SOUTHERN SHIPYARDS.

Appointment of John H. Kirby of Houston, Tex., vice-president of the Southern Pine Association, as the Government's Lumber Administrator for the South, and modification of the Ferris type wooden ship to meet limitations of natural growth of the Southern forest stand, were announced at Washington last week, following a three-day exchange of views between representatives of the Southern pine lumber industry and the United States Shipping Board.

Word went out at once to Southern pine mills that the Shipping Board would no longer insist on frame timbers wider than 24 inches. This is a reduction in size from a maximum of 34 inches. Southern lumbermen have for months contended that the laminated or "built-up" timber is entirely practicable for the framing of a wooden vessel, and this view has been sustained by actual shipbuilding operations recently carried out with great success in private yards. This method of construction will at once be put into effect on the Atlantic and Gulf coasts, both as to Ferris ships now building and those to be built in future along the Gulf. Original specifications will be adhered to in building Ferris ships on the Pacific coast, where large-size timbers are easily available.

Architects of the Shipping Board are reported as being now engaged in designing a modified form of Ferris ship, contracts for 150 of which will be awarded Gulf coast shipbuilders as soon as ways for them are

empty or new ways constructed. These ships will be built of Southern pine.

Southern pine manufacturers who attended the Washington meetings pledged the industry to produce timbers sufficient to construct at least 300 modified Ferris ships a year, in addition to schedules on which the mills are now working.

The result of the conferences between the Shipping Board and members of the Southern Pine Association was a complete vindication of the lumbermen and conclusive disapproval of intimated charges of slackening and selfishness on their part. It has been asserted that Southern pine lumber manufacturers had delayed the wooden-ship program by failure to deliver promised material, and that failure had been due to lack of sincere effort. As a matter of fact, the lumbermen, through the Emergency Bureau of the Southern Pine Association, have contended for months past that any seeming delay on their part was occasioned by the impossibility of finding in quantity and in accessible localities Southern pine trees sufficiently large to manufacture the extreme sizes in timbers demanded. As long ago as last May this difficulty was pointed out to the Shipping Board, and the Government officials were urged to obtain the largest-sized timbers from the West coast, where trees used in the manufacture of structural timbers grow to larger size.

Later the Shipping Board's attention was called to

the fact that ships were being constructed successfully in Southern shipyards, using smaller and more readily procurable timbers. For a time, however, the misunderstandings between the Shipping Board and the Southern lumber manufacturers grew more acute daily, and a delegation of Southern Pine Association members finally went to Washington to submit formal defense of their position to a Senate investigating committee. The happy ending of the Wednesday conference with the Shipping Board vindicated the lumbermen so effectively that they decided their proposed appearance before the Senate committee was unnecessary, and that they would not risk doing or saying anything which might have the appearance of criticism of the Shipping Board.

A timber survey of the South will at once be undertaken by the new Lumber Administrator to ascertain definitely the forest resources of the section as they may be applied to ship construction. Mr. Kirby will establish headquarters in New Orleans, and will have complete authority to take all necessary steps to get out timbers needed for the Emergency Fleet. Plans are now being considered for the holding of a mass-meeting of lumbermen at Memphis, Tenn., to consider means by which the closest co-operation with Mr. Kirby will be assured.

A statement regarding the situation issued by the Southern Pine Association says, in part:

"As a result of readjusting timber requirements, thereby adapting the schedules to the Southern woods, the Shipping Board has made it possible for us to more adequately and practically furnish the needed supplies. Due to this situation we will be in position to not only hasten the Shipping Board's needs more effectively, but aid the country's great necessity. Southern pine forests are so extensive that they readily produce enormous quantities of ordinary size timbers. Shipbuilding promises to be speeded up tremendously."

Q When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

Illuminating Discussion of Shipbuilding Difficulties by Southern Lumbermen.

Beaumont, Texas, March 8, 1918.

Editor Manufacturers Record:

We have your letter of February 27, asking our views on whether or not the Southern mills have been laying down on the fulfillment of their contracts to provide timbers for the construction of wooden ships.

We were, at first, reluctant to comment on the subject, inasmuch as we have no information as to who is really offering the criticism in Washington, and furthermore, from statistics which we were able to obtain, we have gained the impression that during the past few months the Southern mills have done extremely well in furnishing the shipyards an adequate supply of timbers.

As an example, we received on January 18 information that the mills, in spite of the extreme cold weather and other operating difficulties which existed at that time, shipped during the preceding six-day period 85 cars of ship timbers a day, or a total of 510 cars for the week. These cars loaded an average of 16,600 feet, which make the shipments total 1,411,000 feet a day, or nearly enough to complete a standard sized 3600-ton Government wooden ship every day. The total shipments for the week aggregated 8,466,000 feet. At this rate of shipments Southern pine producers will have delivered by the end of March all the timbers they have contracted to furnish up to July 30.

We have received many other striking facts which would indicate that statements made, which created a feeling that the Southern pine lumbermen have not been furnishing timber for the wooden ships as quickly as they agreed to do, should not be construed as trying to shift the blame on our industry entirely, but rather because the parties making them are not thoroughly acquainted with all the circumstances and the many

difficulties that the mills have had to contend with and overcome in the execution of the work.

We realize that some of the ship yards have suffered delays to some extent on account of not having a sufficient quantity of large sized timbers, and we are frank to say further that they have been delayed on account of numerous other things, some of which are beyond human control. In almost every shipyard there may be found thousands of feet of timber and planking which has been rejected by Government inspectors and which was previously inspected and accepted at the mill by another inspector. This necessitates the same material having to be placed two or three times, and in some instances more, and each time the workers are compelled to wait until the material can be duplicated.

Our opinion of the cause of the delay in the delivery of pine to Southern shipyards would cover a multitude of reasons, but we feel that the impressions which have been created in the minds of the Shipping Board and in the minds of the public that the Southern pine lumbermen have fallen down in their agreement, should not be allowed to remain and the total blame attributed to us alone.

We believe that timber is in the Southern forests in sufficient quantity to build a bridge of ships across the Atlantic, but the percentage of larger sized trees is not great enough to permit of maximum speed of delivery of the present schedules which are now under construction.

To intimate that the lumber people have been taking care of their private trade at the expense of delaying the fulfillment of their contracts to provide timbers for ships would mean a reflection on the patriotism of the lumber industry, which is far from being the truth. On the contrary, the mills have shown in every

particular their willingness to put forth extra efforts, labor and expense in selecting the large trees big enough to provide the necessary timbers for the construction of certain parts of the ships.

We, ourselves, have gone far in advance of our logging and have refused commercial orders which would interfere with Government orders, and we are confident that there are hundreds of others who have done the same thing, because we realize that without shipping facilities our cause is lost, and it is up to us to see that the wooden ship building program is not delayed, but expedited. We believe that the measure and depth of our loyalty has been proven in spite of the many criticisms being made.

There is another condition existing in the Southern shipyards which we believe could in a manner be avoided. We have known of instances where the mills have furnished a carload of extra large sized timbers only to have them reach the shipyard and, because of so many changes, have reworked and utilized into smaller timbers which could have been had in almost any quantity at a much lower price.

Since the lumbermen were originally given to understand that the Government would want lumber for only 50 ships, together with the many changes in the schedules, we believe the quantity was increased too great to permit the mills furnishing the larger sized timbers as fast as the shipyards were calling for them.

In our opinion there are two solutions to the speeding up of the shipbuilding program which might be considered:

First, the adoption by the committee in charge of the Emergency Fleet Corporation the type of wooden ship which was recently launched at Orange, Texas, and which varies widely from the present design now being built for the Government. This boat has a capacity of 5000 tons, which requires but 1,400,000 feet of yellow pine timbers, the largest of which is 15x15-46 feet, while the present model, although 1500 tons smaller, calls for 1,600,000 feet of timbers, many

of which are of sizes which have taxed the forest reserve of the mills to produce.

Second, the adoption of red gum in place of the large sized timbers which have been so hard for the pine mills to produce as rapidly as some of the yards were needing them. There has been much criticism against the use of this durable wood, which can be found on millions of acres adjacent to the builder in the Gulf States, with the advantage of quick delivery and low freight rates. This species of gum varies widely from what is commonly known as sweet, black and tupelo gum, and we are afraid that those who have condemned the idea of its use are confused and are really not familiar with its structural value. This wood has been recognized by American shipbuilders and has been used in the construction of wooden vessels and the durability and structural strength of this material has never been questioned. Objections have been advanced against the use of this wood by parties in charge of purchasing material for the Emergency Fleet Corporation as to its durability, strength and tendency to warp and twist, and in the opinion of the contractors, as well as ourselves, this argument is without foundation. We sincerely trust that this matter will be reconsidered and in the course of a short time this wonderful wood with lasting qualities will be given an opportunity to demonstrate its worth.

In reference to labor conditions throughout the Gulf States, we are frank to say that this matter is a very serious one and is becoming more acute every day. This condition, however, has been brought about by the extremely heavy demand for labor by the shipbuilders along the Gulf and Atlantic States and, of course, caused the mills tributary to the shipyards to suffer more than those located farther inland. The scale of wages being paid by the shipbuilders at Gulf ports is undoubtedly attracting a great many men from the Southern sawmills, which not only causes

CONCRETE VESSELS MAY SOLVE SHIPPING PROBLEM.

Universal Interest Aroused in Launching at a Pacific Port of Largest Concrete Ship Yet Built.

Lively interest is manifested by Government officials and the public generally in the launching at a Pacific port last week of the 7900-ton concrete ship *Faith*, much the largest concrete boat yet built anywhere. If the vessel stands all tests, the builders hope this type will help to solve the nation's need for ships. Every step of the construction has been watched by the Government. The vessel is 320 feet between perpendiculars, 44.6 feet wide and 30 feet deep, and when loaded will draw 24 feet of water. Her displacement will be 7900 tons, and she will have a carrying capacity of 5000 tons and make 10 or 11 knots an hour with triple-expansion engines furnishing 1750 horse-power. She is ten times larger than any concrete boat now on record in this country.

Advantages claimed for the new vessel are that concrete construction does not interfere with steel construction; plenty of concrete can be had; concrete vessels can be built for the present cost of wooden vessels; concrete vessels of 7500 tons can be launched within 90 days after work starts, while the cost of the "plant" is "as \$25,000 to \$500,000" compared with a steel shipyard.

The floor of the vessel is about four and one-half inches thick, the side four inches, with a great steel shoe down the bow. Imbedded in the concrete are 540 tons of steel, a continuous basket work of welded steel mesh, and hundreds of heavy iron bars also welded together.

A watertight wood flooring resting on the bottom beams constitute the double bottom of the vessel. No provision is made for water ballast, the theory being

perhaps with financial aid through the Federal organization.

At the Locust Point plants of the Baltimore Drydock & Shipbuilding Co. the visitors saw great possibilities being developed at the new works on the south side of the peninsula, although there was rapid progress being made in ship construction on the two ways at the older yard on the north side. This company, like the Sparrows Point plant, has contracts for more ships than its ways will simultaneously accommodate, but it is working ahead fast, and one of the large cargo boats, a 6200-ton ship, is almost ready to launch, as is one of the huge tankers at the Bethlehem yard. The Baltimore Drydock & Shipbuilding Co. is also building at its Cross-street yard in Baltimore seven mine sweepers for the Government and it has contracts for several cargo steamers for the emergency fleet.

The program of this company is to turn out eight completed ships this year and twelve next year. It has two ways at the old Locust Point yard and four at the new yard which is now being fast completed, which, with the two ways at the Cross-street yard, gives it a total of eight ways when the new plant is fully complete, although part of it is already in operation.

Messrs. Hurley and Piez were accompanied on their trip of inspection by Robert D. Heinl, head of the department of shipyard volunteers; Frank B. Lord, assistant to Chairman Hurley; W. S. Meriwether, press representative, and S. G. Jenks, Baltimore district officer of the Shipping Board, whose duties extend to Wilmington, Del. There were also a number of Washington correspondents of newspapers in this country and England.

It can be said that the United States Shipping Board has practically decided that the best plan to follow in its work is to spend no more money at present for the construction of entirely new shipyards, such as is being built at Hog Island, just south of Philadelphia, but to apply funds for the enlargement of existing shipbuilding

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a shortage in labor but decreases the efficiency of that which is available. We do not attribute the cause to the I. W. W.

B. B. HALL.

Mills Faithfully Trying to Meet Government Requirements.

J. R. McLane, Pres. D. H. Morris, Secy. and Treas. Alabama & Florida Lumber Co., Noma, Holmes County, Fla., March 11.

Editor. Manufacturers Record:

Yours of the 26th to hand, relative to scarcity of large ship timbers. In our territory (West Florida) we have not the large trees to make the larger sizes. It is good structural wood, but timber is small, not large enough to cut any considerable quantity larger than 14 inches square, and the sizes now needed for the ships are from 20 to 32 inches wide.

I feel sure the mills are not selling timbers to commercial trade that are suitable for ship timber; we have given Government orders preference over all other business. Have not entered any orders for timbers except for the Government since last summer, and have given all lumber orders for the Government preference, and I think the other mills in this territory have been doing the same.

In order to get as much of the ship schedule as possible, we took up our track, leaving several thousand logs in the woods, and built into some larger timber; also bought teams to pick out and haul in the larger logs ahead of the skidder, and from what I can learn I think other mills have been doing the same.

The work has been held back considerably by scarcity and inefficiency of labor. Our best labor has been drafted, and think labor will be scarcer now by reason of men going to the farms.

Another cause of delay, the ships schedule has been changed several times, requiring more of the larger timbers and heart specifications in other sizes instead of merchantable, as originally given. It requires a log at least three to four inches larger to make the same size piece heart that it would to make the same piece merchantable.

J. R. McLANE.

that the vessel will travel without ballast, riding safely with her heavy bottom. Six concrete bulkheads divide the vessel. The main deck is wood laid on concrete stringers. The shelter deck is concrete. The dead weight is put at 600 tons more than a steel vessel of like capacity. The vessel will burn oil, using 160 barrels a day, and her reinforced concrete tank will carry 30 days' supply.

"Besides the low first cost, we will save 75 per cent. of our lumber on later boats by 'reusing it,'" the builder of the boat is quoted as saying. "Two other vessels of 7500 tons each will be started as soon as we get this one out of the way. In these we will use forms built in sections and bolted. When we strip them from the concrete they will come off a section at a time."

"A concrete boat will last indefinitely. Concrete gets better the first nine years of its life, and after that it should last a long while. The life of a steel boat ordinarily is 25 years."

RAPID SHIPBUILDING AT BALTIMORE.

E. N. Hurley and Charles Piez Visit Two Big Yards in Full Swing.

Edward N. Hurley, chairman of the United States Shipping Board and president of the Emergency Fleet Corporation, accompanied by Charles Piez, general manager, last week visited the two principal shipyards in the Baltimore district and expressed themselves as being highly gratified by the activity and progress displayed at both of these large plants.

At the Sparrows Point plant of the Bethlehem Steel Co. every one of its seven shipways is occupied by a big steamship in an advanced stage of construction, at least one being nearly completed. These vessels include three Cunarders of 7400 tons each, two big tankers of 11,300 tons each for the American Petroleum Co., one ship of 6300 tons and one of 10,600 tons for other owners. To the immediate south of the present shipways is ample room for many more than twice the number of those now employed and this may soon be taken up for use,

plants that are well managed and where conditions are otherwise generally favorable for ship construction. There are now approximately 250,000 men employed in building ships and in the construction of shipyards, and these forces, it is estimated, can be enlarged by adding 10 per cent. of their number each month without impairing the efficiency of the work under way. This total number, it must be observed, does not include the armies of men employed at fabricating materials for use in the building of vessels.

The contract for the erection of several hundred houses for workmen near the Sparrows Point plant has not yet been awarded by the Shipping Board. It is understood that some finishing touches are being made to it, these being necessary because the conditions of the agreement as originally drawn conflicted with the provisions of the bill appropriating \$50,000,000 for housing which was recently passed by Congress and approved by the President.

Shipbuilding News of the Week.

Government contract has been awarded to the Baltimore Dry Dock & Shipbuilding Co. of Baltimore to build six steel tank steamships of 6000 tons capacity each.

The three-masted barkentine launched last week at the plant of the Tarver Shipbuilding Corporation, Beaumont, Tex., is 185 feet long and of 1200 tons net register. It will be equipped ready for ocean trade within the next 50 days.

The schooner *Commack* launched last week by the Naul Shipbuilding Co. of Wilmington, N. C., is a sister ship of the *Hoppage*, recently launched. It has a gross register of 1500 tons, a displacement of 2500 tons and a dead-weight capacity of 2100 tons. This vessel is built of long-leaf pine, 236 feet long by 220 feet long on the keel, with a beam of 40 feet and a depth of 21 feet.

The manufacture of locust pins or treenails for ship construction is contemplated by R. S. Eskridge of Richwood, W. Va., and he wants prices on the necessary machinery.

Branded as Slackers or Worse Those Who Delay Building of Ships

[Special Correspondence Manufacturers Record.]

Washington, D. C., March 14.

The severe criticism of the slackers among the shipyards workers, who by their dilatory methods and selfish demands are delaying the shipbuilding program, cannot be extended to the leaders of the metal trades unions, who are standing solidly with the Government against the president of the Woodworkers' Unions, William L. Hutcheson. The attitude of this one union chief and his amazing statements to the Shipping Board, in the opinion of many, border closely upon disloyalty.

As an example of Mr. Hutcheson's expressions may be cited his letter in reply to a request from the Shipping Board that more cathers be furnished by the union on the Pacific coast. There is a need for 400 more cathers in that section, and boats are on the ways held back because of the shortage. Yet the president of the Woodworkers' Unions states that he will not furnish the cathers which he admits are enrolled until his pending grievances are adjusted by the board. In the meantime, the soldiers in France, many of them the sons of union men, cannot get needed supplies because of the lack of ships.

Such defiance on the part of Hutcheson is condemned by every honest citizen, whether a supporter of organized labor or not. The aid which the metal trades presidents have given to the Government in the entire controversy with the carpenters' organization is considered by officials as a sure indication that the majority of the workers will support the war measures to the best of their ability. They believe that when some of the men fail to give a full day's work, or threaten strike, they do not express the sentiment of the bulk, but are indi-

This question of responsibility is arousing considerable interest in Washington. It is recalled that when President Wilson urged Mr. Hutcheson to prevail upon the striking carpenters to return to work, the labor leader stated that the men struck without his approval, and that he was powerless to have them return to duty. They did go back to work, however. If the carpenters are independent of their chief in all of their actions, as appears to be the case, the threats of a strike implied by Mr. Hutcheson are without force, and the impression is strengthened that the agitation is largely a personal matter with him. The union should repudiate its unrepresentative chief, or Hutcheson should separate himself from the carpenters who scorn his direction.

The motive behind the discussion has been described as an attempt by the radical element in the Federation of Labor to wrest the control from the conservatives, as well as an effort by the carpenters to get exceptional benefits, such as were granted them in the building of the cantonments. It has also been suggested that there is a more sinister motive underlying the whole affair, which should be probed to the bottom.

President Wilson has made it quite clear that he will not receive Mr. Hutcheson or consider his complaints until the carpenters have agreed to subscribe to the same regulations that have been accepted by the other unions. This is not a time for privileges, but one for complete co-operation. Thousands of loyal men have pledged themselves for the shipbuilding reserve, to push the construction of the vessels which will carry defeat to the Kaiser. Union and non-union men will work side by side for the same great purpose, and the agitators

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vidual slackers, or a reflection of the internal agitation in the shipyards inspired by pro-German agents.

Labor leaders are frankly stating that the workers of the nation cannot afford to do anything which is detrimental to the shipbuilding program at this time. Not only is the fate of the nation dependent upon an immediate and continuous supply of ships, but the prosperity of every branch of industry is involved. Members of the American Federation of Labor at the recent conference called to consider the grievances voiced by Mr. Hutcheson on behalf of the carpenters admitted that the agreement under which labor is operating with the Shipping Board and the Navy Department has been productive of some of the greatest benefits yet received by the workers of the United States.

The Labor Adjustment Board, which has been the outgrowth of the agreement in establishing the wage scale on the Pacific coast, accepted the highest prevailing prices paid in the shipyards as the minimum in the new scale. In the Delaware River section the board granted all the increases which the unions desired, and at the same time effected an arrangement which was also advantageous to the yards. Samuel Gompers says that the metal trades men do not find in the agreement all that they might wish for, but they do believe that it is the best that can be obtained under the circumstances, it is working satisfactorily, and they are willing to stand by it in loyal co-operation with the Government.

The carpenters, however, according to their spokesman and president, are not content to accept these benefits, but demand special privileges not sought by any of the other trades. The metal trades have accepted the conditions of labor as decided by the board. The carpenters refuse to abide by such a ruling. They demand that the Department of Labor be empowered to hire all carpenters and joiners in the shipyards, and insist that a representative of the union shall sit with the committee at the department to pass upon the men employed. In effect this would establish a closed shop for the carpenters, and if granted, every other union might with equal right demand the same privileges.

As a final word in the argument Hutcheson states that he will carry his complaint to President Wilson and that if his men strike he will not be responsible.

who seek to halt the progress of the war machine must be repudiated by all loyal men, regardless of the motive which may inspire their utterances.

Contract Awarded for Big Shipyard.

Final details have been determined and contract has been awarded for building the American Shipbuilding Co.'s plant at Alexandria, Va., the engineer being Fred T. Ley of Springfield, Mass. This shipyard will be built in accordance with the plan heretofore announced for facilities to construct 9400-ton steel ships, the new corporation having received a contract to furnish 12 Government ships costing \$20,000,000. It will include the following departments: Six shipways; one-story 400x212-foot fabricating shop; 200x75-foot machine shop; two-story 125x60-foot blacksmith shop; two-story 125x60-foot joiner shop; one-story 125x50-foot coppersmith shop; one-story 150x60-foot carpenter shop; one-story 250x75-foot storehouse; waterworks; sewer system; power for six shipways, tracks, etc.

Fred T. Ley & Co., Inc., Springfield, Mass., have received contract to build the entire plant, and Fred T. Ley is furnishing the plans and specifications. The American Shipbuilding Co. was organized with Colon H. Livingstone of Washington, D. C., as president, and among the directors are B. W. Morse and H. F. Morse of New York. It was chartered with an authorized capital of \$10,000,000, and its plant site includes 30 acres of land at Jones Point, on the Potomac River, near Alexandria and Washington.

To Build Coasting Schooners.

A plant for the construction of coasting schooners will be established at Tarpon Springs, Fla., by the Macrenaris Shipbuilding Co. This is a new organization, capitalized at \$50,000, and E. Macrenaris is the manager. Materials are now being gathered at the site for the construction of this shipyard.

TEXAS COWBOY SHIPBUILDERS.

How a Party From the Plains Country Made Good and What Their Leader Said.

Among the patriotic Americans who have answered their country's call in war, what do you think of a troop of Texas cowboys, some of whom never saw a puddle of water larger than a city square, volunteering as shipbuilders? The average plains cowboy never saw a ship; never was within smelling distance of salt water; doesn't know whether ships have to be caught while young and broken to ride, or whether they are naturally docile and may be safely straddled by any tenderfoot.

Four months ago there cantered up to the National Shipbuilding Co.'s yards at a Texas port a company of genuine cowpunchers, "chaps" flapping, spurs jingling, quirks swinging, sombreros rakishly a-tilt. Their leader was a loose-jointed giant of a herd boss, Luke Haley, who announced himself and his companions to the yard foreman, and stated that they had "heard tell" the United States of America was calling for men to help build a "herd" of ships. "Such being the case," concluded Mr. Haley, "lead us to it; we're rarin' to go."

The shipyard foreman, with workmen scarce and hard to get, realized that whatever these cowboys did not know of shipbuilding, they unquestionably were agile and ablebodied huskies. So they were invited to come right in, in which they did after hitching their ponies to the fence. They not only have been there ever since, but A. A. Daugherty, president and general manager of the National Shipbuilding Co., says they have "made wonderfully efficient workmen. Furthermore, the cowboys first to come sent word of their satisfactory employment to friends in the cattle country, and more men from the ranches are arriving every week to join

in building ships. Good jobs and steady employment particularly appeal to many of them, because a serious drouth in the ranch country last fall necessitated the removal of many thousands of cattle, and herders have since then been a drug on the market.

Luke Haley, the leader of the cowboy shipbuilders, was found one day last week operating a big windlass with the easy grace with which he formerly guided a fractious cow-pony through the mesquite. He had shed his chaps and spurs, but he still clung to the sombrero.

"How'd us cow men happen to be here?" he replied to a query. "Why, we just heard the country was hard up for men to build ships, and we figgered we'd take a try at it. I never saw a ship in my whole life till I came here; same way with the rest, I reckon. Yep, the boys all like the work—more of 'em coming in all the time. There's only one trouble with 'em when they first get here, they figger on winding up the business all in one day. They came here with the notion that building a ship is something like throwin' and branding a calf; just a matter of a little brisk work, and then everybody straddle their ponies and go home."

The cowpuncher contingent at the National yards had the sensation of their lives the other day when the first ship was launched. As the towering 315-foot vessel plunged into the water, snapping restraining cables and slamming giant timbers about like matches, the range riders stood paralyzed, pop-eyed with wonder. Mr. Luke Haley made but one comment:

"I'd shore hate to try to rope and throw that hussy," he said.

Shipyard for Elizabeth City.

A plant for the construction of steel steamships will be built on Goat Island, Pasquotank River, Elizabeth City, N. C., by the Maritime Engineering Corporation. This company has organized with an authorized capitalization of \$1,250,000, and Russell B. Smith of New York is its president. The shipyard site has been leased, and preparations are now being made to begin the construction of buildings, ways, shops and other necessary facilities.

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MANUFACTURERS RECORD.

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\$9,250,000 FOR CHARLESTON IMPROVEMENTS.

Navy Plans Big Expenditure for Channel, Drydock, Storage and Terminal Construction in South Carolina.

Improvements costing \$9,250,000 are planned by the Navy Department for South Carolina, this amount being included in the \$1,300,000,000 appropriation for naval service provided in the annual budget completed by the naval committee. This big expenditure is to be made at and near Charleston, where every possible improvement will be undertaken to facilitate the construction and launching of Government vessels.

A direct appropriation of \$5,000,000 is specified for deepening the channel to 40 feet from Charleston Navy-yard to the sea, with a \$4,000,000 appropriation for building a large drydock at this navy-yard, while \$1,000,000 is the amount named for dredging the channel at Charleston. There will also be provided a big storage plant, estimated to cost \$16,500,000, and the plans for this contemplate 3,300,000 square feet of space. Contract for constructing the Charleston terminals has been awarded to Degnan & Co. of New York, and this firm is now determining details for the work.

The channel improvements will provide deep water for launching vessels from the Fuller shipyard, which is to be built on Cooper River, between Charleston and Mt. Pleasant, S. C. This plant will be established by the Fuller Construction Co. of New York, which has secured a Government contract for building 12 steel steam freight ships of 9500 tons each. It will be furnished the necessary railroad transportation facilities for incoming and outgoing plant equipment, ship construction materials and other supplies, by extensions which the Seaboard Air Line Railway and the Charleston Isle of

Influence of Electrochemistry on Nation's Industrial Life

PRESIDENT FINK OF AMERICAN ELECTROCHEMICAL SOCIETY OUTLINES SIGNIFICANCE OF SOCIETY'S COMING TOUR OF THE APPALACHIAN SOUTH.

[The importance of the coming visit of the American Electrochemical Society in the South should command the attention of every progressive interest in that section.

The society has arranged to leave Washington, April 28, and visit Kingsport, Knoxville and Chattanooga, Tenn., and Muscle Shoals and Birmingham, Ala. The foremost experts of the country in electrochemistry and electrometallurgy will be among those making this trip, and it is vitally important that the sections to be visited should thoroughly realize what these industries mean to the industrial life of the nation, and should be in a position to present to the visitors as complete data as possible regarding advantages of the various localities offered for the location of such industries.

In order to give some idea as to the basic importance of electrochemical and electrometallurgical industries, the Manufacturers Record has requested several of the officials and members of the society to furnish us with some preliminary articles on these subjects. The following article by Dr. Colin G. Fink, president of the society, while touching briefly upon the scope and importance of the industry, at the same time very vividly outlines the tremendous influence which these industries exert.

The South is fortunate in possessing the elements of a practically ideal location for this type of industrial operation, and advantage should be taken of this visit to so bring out and impress the visitors with these resources that some of them will be located in this section, and thus bring into productivity many resources that are now latent and which will materially add to the wealth of the South and of the nation.—Editor Manufacturers Record.]

By DR. COLIN G. FINK, President American Electrochemical Society.

The vast importance of the American electrochemical industry has been most strikingly demonstrated within the last three years. Although the value of our electrochemical products already amounted to as much as \$100,000,000 annually at the beginning of the

into reaction with nitrogen from the atmosphere to produce ammonia, and in another plant nitric acid and nitrates will be made.

The ever-growing importance of electrochemistry was early recognized by many of our electrochemical

Buy Liberty for Yourself and Your Country by Buying Liberty Bonds

Palms Traction Co. are already planning for their respective steam and electrical railways to the plant site.

A length of 1000 feet with a 40-foot sill is proposed for the drydock, the naval bill carrying an appropriation of \$1,150,000 under a limit cost of \$4,000,000 for this dock. While there may be some changes in the Government plans for these betterments, it is understood that in the main the expenditures and plans as outlined will be adhered to by the various committees and departments of the Government. Final and definite authoritative statements will soon be made public.

Fuller Shipyard for Charleston.

Government contract has been awarded to the Fuller Construction Co. of New York for building twelve 9500-ton steamships, and a plant for constructing these vessels will be established near Charleston, S. C. It is understood that the Fuller shipyards will be built on the Cooper River between Charleston and Mount Pleasant, S. C., where ample facilities will be provided and where Government channel improvements will insure deep water for launching vessels of any tonnage. The Seaboard Air Line Railway and the Charleston Isle of Palms Traction Co. are already planning to extend their respective steam and electrical railways to the plant site in order to provide the necessary railroad transportation facilities for incoming and outgoing plant equipment, ship construction materials and other supplies.

Slidell's Fifth Yellow Pine Boat is Launched.

New Orleans, La., March 16—[Special.]—The Slidell Shipbuilding Co. at Slidell, La., has completed its fifth wooden vessel for Christopher Hannevig of New York. Length, 238 feet; beam, 44 feet; depth, 20 feet; heaviest timbers, 14x17 inches by 36 feet long; 2500-ton capacity, equipped with 1000-horse-power engine. Eight composite steel and wood ships are to be built by the Slidell company for the Emergency Fleet Corporation.

present century, it remained for the European war to demonstrate most forcibly the utter dependence of our country's economic welfare, progress and safety upon products of the electrolytic cell and electric furnace. The diversity of the products is best illustrated by the following list: Every one of these products is absolutely essential toward carrying out successfully our sincere and noble purpose in the present world crisis: Aluminum, magnesium, electrolytic zinc, ferro-tungsten, ferro-molybdenum, ferro-silicon, ferro-manganese, ferro-chromium, ferro-vanadium, ferro-titanium, silicon, phosphorus, chlorine, sodium chloride, carbon bisulphite, calcium carbide, nitric acid and nitrates, hydrogen, caustic soda, caustic potash, graphite, carbon electrodes and the artificial abrasives carborundum and alundum.

Over 75 per cent. of the copper consumed today is produced by electrolysis; it is of the highest attainable quality, exceeding in purity "sterling" silver. The modern electrical industry with its dynamos and motors, its telephone, telegraph and wireless, and its numberless electro-magnetic devices, would be hopelessly crippled if we were to deprive it of electrolytic copper.

Tools made of special steels, such as ferrochrom tungsten, produced in the electric furnace, have ten-fold the output of our machine shops. The best crucible steels today cannot compete with the electric steels. Ten years ago electric steel furnaces were looked upon as expensive experiments; today they form indispensable equipments of every modern steel plant.

Nitrates and other compounds of nitrogen enter into the composition of nearly every powerful explosive; nitrates likewise form a necessary constituent of fertilizers. To render our country independent of the nitrate deposits of Chile and to conserve our resources of coal, which at present furnishes most of our ammonia, our Government has decided to erect synthetic nitrate and ammonia plants at Muscle Shoals. Electrolytic hydrogen derived from water will be brought

engineers and in the fall of 1901 a number of our engineers suggested the formation of a scientific and technical organization which would foster the interest of electrochemistry. In response to 350 enthusiastic replies the American Electrochemical Society was founded on April 30, 1902.

The object of the society is the advancement of the theory and practice of electrochemistry. Among the means to this end are the holding of meetings for the discussion of electrochemical subjects and joint visits to electrochemical factories and laboratories and those of allied industries. Membership is open to all interested in electrochemistry. There are today almost 2000 names enrolled. Although most of our members reside in the United States, about 25 per cent. are located in foreign countries. The society holds two meetings per year, one in the spring and another in the fall. The scientific papers and discussions of each meeting are collected and published as the "Transactions of the American Electrochemical Society." Thirty-two volumes have been published.

Besides the national organization there are local sections of the society at New York, Madison, Pittsburgh, Philadelphia and Niagara Falls. The formation of a Southern local section has been suggested.

The coming spring trip (week of April 28) of the society through Tennessee and Alabama will afford the members and their friends an opportunity to study at close range the splendid progress that has been made in the South in the development of hydroelectric and electrochemical installations. On the other hand, the society hopes to stimulate interest in the further development of the Southern electrochemical industries and to direct the attention of our Northern engineers and manufacturers as to its wonderful future possibilities.

Members and non-members interested in making the trip should apply at once to Charles F. Roth, chairman, Committee of Arrangements, 50 East Forty-first street, New York City. About 100 members and guests have already signified their intention to participate. A special train will be provided for the trip.

Government's \$55,000,000 Enterprise Rapidly Developing at Muscle Shoals

Work by the Government on the big nitrate plants and hydro-electric development at Muscle Shoals, near Florence and Sheffield, Ala., on the Tennessee River, is progressing rapidly. About 4000 men, comprising laborers, superintendents, carpenters and other skilled mechanics, are now employed, and this number will be doubled as soon as living accommodations already planned have been completed. On the improvements as so far planned by the Government \$55,000,000 will be expended, divided as follows: \$30,000,000 for a cyanamid nitrogen fixation plant; \$5,000,000 for synthetic process nitrate plant; \$20,000,000 for the Muscle Shoals hydro-electric plant, which will furnish the electricity for the nitrate plant.

By June 1 the synthetic plant, which occupies a 1700-acre site, is expected to be completed, manufacturing nitrates for explosives under the modified Haber process for the production of ammonia, nitric acid and ammonium nitrate. It is stated that the process chosen has never been used outside of Germany.

The plant is being built under Government contracts with the J. G. White Engineering Corporation of New York and the mechanical equipment for manufacturing is being installed by the General Chemical Co. of New York, which controls the Haber process and has donated it to the Government for military use. This is No. 1 nitrate plant, and it is located in West Sheffield, on the south side of the Tennessee River, while the \$30,000,000 plant will be located at the new town of Muscle Shoals, on the Government reservation adjoining Sheffield. The daily capacity of No. 1 plant will be 30 tons of ammonium nitrate and 4 tons of nitric acid.

Detailed plans of the No. 2 factory have not as yet

in length, the longest dam in the world. It will be 40 feet high, will require nearly 500,000 cubic yards of concrete and will form a reservoir with an area of 2500 acres. About 180,000 horse-power will be development of No. 3 dam, while the No. 2 dam will generate 480,000 horse-power. The initial unit of the equipment will have a capacity of 150,000 electrical horse-power. Until the 660,000 horse-power is ready for distribution the cyanamid plant will be supplied with electricity from two steam-driven electric generating stations with a capacity of 60,000 horse-power, being built on the Government reservation by the J. G. White Engineering Co., and from the steam-driven electric plant which the Alabama Power Co. of Birmingham is building on the Warrior River immediately at the mouth of a coal mine.

The site of all these big developments around Sheffield and Florence, near the Muscle Shoals of the Tennessee River, is a scene of industrial activity such as has never before been witnessed in Alabama. In building manufacturing plants with the accompanying water-power development the Government is providing for establishments which will mean many more millions of dollars in general trade for the surrounding territory because of the demand which will naturally follow the presence of so many thousands of workmen with their families.

Livestock Going to "Cut-Over" Lands of the South.

A trainload of sheep and goats recently passed through New Orleans, en route from Dryden, Tex., to Isabel, La. These animals are the vanguard of an

Marked Improvement in Coal and Coke Production.

Last week's output of soft coal was the largest since November 24, announces the Geological Survey in its report of March 16. The total bituminous production during the week ended March 9 (including lignite and coal made into coke) is estimated at 11,288,000 net tons. The daily average for the week (1,871,000 tons) was exceeded in the week of January 5, but at that time the total production was reduced by the New-Year holiday. The improvement has been made possible by relief of the railroad freight congestion. Anthracite and coke, both beehive and by-product, reflected the increase in bituminous production.

Preliminary estimates based on railroad shipments place the week's production of beehive coke at 633,000 net tons, or 106,000 tons per working day. Reported Connellsburg production increased from 285,828 tons during the preceding week to 314,409 tons.

Anthracite shipments rose to 42,207 cars, the largest since the week of December 1.

For the country as a whole, the ratio of coal tonnage produced to full-time capacity during the week ended March 2 was 70.9 per cent. Shortage of cars remained the dominant factor limiting production; losses attributed to that cause amounted to 20.8 per cent. of capacity.

A general improvement in working conditions was reported from Illinois, east to Pennsylvania and south to Alabama. In Illinois, Ohio and throughout Pennsylvania the improvement was effected by the reduction in losses due to car shortage. The only districts in the Appalachian regions to report more acute car shortage were the Panhandle, New River and Pocahontas fields of West Virginia. From the Fairmont district and the high-volatile fields of southern West Virginia a marked improvement in transportation was reported. In both districts, however, production is still far short of capacity; the Fairmont field operated to 49.3 per cent.

Q When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

been made public, but the specifications have been completed and preliminary construction has begun. There will be a number of subsidiary buildings besides the main structure, the foundation of which is being prepared, and indicates that this building will be several thousand feet long by 1000 or more feet wide. These plants will be built by the Air Nitrates Corporation of New York, owned by the United States Government.

An industrial city has already been completed for the accommodation of the many men who will be required for building No. 2 plant, the present capacity being 7500 workmen, and arrangements have been made for doubling. The new city is mainly a duplication of one of the large cantonments in Chickamauga Park, near Chattanooga, the buildings having been erected upon the barracks plan, each having accommodations for 50 men. There are dwellings, offices, hospitals, moving-picture theaters, mess halls, commissaries, postoffice, recreation-rooms and police station. Police protection is afforded by military police and the entire city is under military rule.

Near this city is a village of 186 dwellings, each accommodating two negro families, for the negro workmen. In this village there are a church, a commissary, a hospital and a dance hall.

The No. 2 cyanamid plant will probably require 15,000 employees when operating at full capacity, and a complete city will be built to provide for these men. Many miles of water, sewer and drain piping are now being laid within the four square miles of land for this city and the big cyanamid plant. Many miles of streets are being constructed, and among the buildings already completed is a hospital with a capacity of 50 beds.

The engineers for Muscle Shoals Dam No. 2, with its power-house and other structures, have determined all the principal details for this work. The dam will be built within a mile of nitrate plant No. 2. It will be 4500 feet long by 104 feet high, and for it and the power-house 1,155,000 cubic yards of concrete will be required. The power-house will be 850 feet long. The reservoir of this dam will have an area of 9000 acres. No. 2 dam will not be completed until dam No. 3 has been built, 16 miles upstream. No. 3 dam will be 6420 feet

army of livestock that is being assembled to occupy the extensive cut-over land region of the South, a vast area heretofore undeveloped and non-productive. This first shipment, comprising 27 double-decked carloads, was made by J. W. Bassett, who lately acquired more than 65,000 acres of cut-over pine lands from the Great Southern Lumber Co. of Bogalusa, La. He will soon make additional shipments of cattle, hogs and sheep, and herders will be brought from Texas to the Isabel "range." All of this livestock is from a district free of the Texas fever tick, and their new home will be in territory likewise free of it.

It is also stated in a report from New Orleans that many thousands of cattle and sheep will come into the Southern States from Texas and from the Northwest, where homestead laws which recently became operative cut off the stock growers from the "open" range. Stockmen have been attracted to the South because of its available extensive tracts of pasture lands, an abundance of pure water, dependable rainfall and a mild climate.

Proposition to Settle Returned Soldiers on Undeveloped Lands.

Washington, D. C., March 18—[Special.]—While the War Department is training hundreds of thousands of Americans for soldiers, another branch of the Government is already planning to make life better for them after the war. The Department of Labor has had investigators at work on this matter for several months, and the report of one investigator, Benton Mackaye, is now published. He suggests extensive plans to develop cut-over lands and swamp lands and to establish permanent forest industries, saying that there are approximately 100,000,000 acres of idle land in the United States, all of which is capable of reclamation through stump clearing and drainage or irrigation, as may be necessary. These lands are scattered from Texas to Minnesota and from Virginia to the Pacific Northwest.

and the high-volatile field to 58.2 per cent. of capacity.

An improved car supply and increased activity in movement by river caused beehive coke production in the Connellsburg and adjacent regions to reach the highest point attained since November. Sixty-one of the principal operators in the Connellsburg, Greensburg and Latrobe districts reported a production of 255,325 net tons during the week ended March 9, or 60.8 per cent. of their full-time capacity as reported by the railroads. Losses due to shortage of coke cars fell from 32.8 per cent. of capacity during the preceding week to 27.4 per cent. Losses due to shortage of yard labor were reported at 6.4 per cent.

An increased supply of coal cars enabled the same operators to ship 168,050 tons of coal.

An increased supply of by-product coal during the week of March 9, reflecting the continued improvement in transportation conditions, resulted in the largest production since the weekly statistics on by-product coke were begun. The plants of the country operated to 86.1 per cent. of maximum capacity, as compared with 80.3 per cent. during the preceding week. Out of a loss of potential capacity of 13.9 per cent., only 8 per cent. was sacrificed for lack of coal. Labor difficulties reduced output at only one plant, located in Ohio, and the loss on that account was but .2 per cent. of the national capacity. Losses due to repairs to plant remained constant at 3.8 per cent.

If the railroads are able to continue delivering sufficient by-product coal, the prolonged depression of the by-product industry during the months of December, January and February will give way to a period of unusual activity. The shortage of coke has created a shortage of pig-iron. Blast furnaces are therefore now being operated to capacity where the supply of coke permits. To care for the immediate demands of the furnaces and to build up a reserve of coke against possible shortage in the future, by-product operators are producing to capacity wherever their coal supply permits.

The Corriner Mills Co., Landis, N. C., will add 3000 spindles and has ordered this new equipment.

Nation's Cotton Manufacturers to Hold Joint War Congress

Arrangements have been made to hold the twenty-second annual convention of the American Cotton Manufacturers' Association jointly with the annual meeting of the National Association of Cotton Manufacturers at the Biltmore Hotel, New York city, May 1, 2 and 3.

This joint meeting, the first of its kind ever held, will be a "War Congress of the American Cotton Manufacturers." The usual recreation and other convention features will be eliminated, with the exception of the closing banquet, which will be more in the nature of a pledge of the united cotton manufacturing industry to the Government for the successful prosecution of the war.

The program will be confined to brief group discussions of the peculiar problems in the textile industry in the light of war conditions, and these discussions will be participated in by leading experts.

The group discussions will be divided into four parts, including foreign trade, labor problems in war time, war problems in industry and importance of research work.

The foreign trade discussion will be on the subject of "America's Place in the World Trade." At this section D. Y. Cooper of Henderson, N. C., former president of the American Cotton Manufacturers' Association, will preside, and there will be addresses by Dr. F. W. Tausig of Washington, chairman of the United States Tariff Commission; Arthur H. Wood of Boston, Mass., and Lewis E. Pierson of the Irving National Bank, New York city. These formal addresses will be followed by an open forum, in which those participating will be limited to five-minute talks.

The second group discussion will be on "Labor Problems in War Time." Albert Farwell Bemis, president

AMERICAN COTTON MANUFACTURERS ASSOCIATION.

J. T. Broadbent, chairman, 320 Broadway, New York; C. B. Bryant, Charlotte, N. C.; Ridley Watts, Watts-Stebbins Company, New York city; Wm. Baldwin, Woodward Baldwin & Company, New York city; R. M. Miller, Jr., Charlotte, N. C.; T. H. Renfle, Pell City, Ala.; Capt. E. A. Smyth, Greenville, S. C.; W. E. Beattie, Greenville, S. C.; Jno. A. Law, Spartanburg, S. C.; Harry L. Williams, Columbus, Ga.; Allen Johnson, president Exposition Cotton Mills, Atlanta, Ga.; Paul K. McKenney, McKinney, Tex.; A. W. McLellan, president The Alden Mills, New Orleans, La.; Jno. B. Morgan, president Morgan & Hamilton, Nashville, Tenn.; M. R. Reeves, Hunter Manufacturing & Commission Co., New York city; Gerrish Millikin, Deering Millikin Company, New York city; T. Holt Haywood, 65 Leonard street, New York city; B. H. Bristow Draper, Draper Corporation, Hopedale, Mass.; Malcolm D. Whitman, Wm. Whitman Company, New York city.

NATIONAL ASSOCIATION OF COTTON MANUFACTURERS.

Russell B. Lowe, chairman, Parkhill Mfg. Company, Fitchburg, Mass.; Edwin H. Baker, Everett Bldg., Union Square, New York city; Arthur T. Bradlee, 78 Chauncy street, New York city; Henry C. Dexter, Warwick Lace Works, Central Falls, R. I.; John E. Rousmaniere, 86 Worth street, New York city; C. Morton Whitman, 29 Leonard street, New York city; Albert Greene Duncan, 201 Devonshire street, Boston, Mass.; Charles M. Holmes, Holmes Mfg. Co., New Bedford, Mass.; Russell H. Leonard, Wampanoag Mill, Fall River, Mass.; William L. Lyall, Brighton Mills, Pasaic, N. J.; Newell Tilton, 66 Leonard street, New York city; Frank J. Hale, 77 Franklin street, Boston, Mass.; Francis R. Marsters, 24 Thomas street, New York city; Gerrish H. Millikin, 79 Leonard street, New York city; Ralph M. Odell, 31 Thomas street, New York city; W. Caldwell Plunkett, W. C. Plunkett & Sons, Adams, Mass.; Henry B. Thompson, 320 Broadway, New York city.

Arrangements have been made with the Biltmore

I gave the detailed figures showing that these products had advanced in price since a normal period, when the price of cotton ranged around 10 to 12 cents, 108½ per cent. In other words, from the time mentioned to March 17, 1917, the cost of growing cotton had increased 11.96 cents per pound. If the cost of the crop of 1917 was only 11.28, as claimed by this firm, are we not forced to the irresistible conclusion that the crop of the period named did not cost anything? It is obvious that it would be to the interest of the East to view the cotton situation from a different angle.

The increased wealth of recent years has greatly stimulated the industrial life of the South. It has brought many new manufacturing plants. Most of these will become permanent. They will continue to increase, and this increase can be expected to become permanent. It means that the industrial competition which is taking the labor from the cotton fields will become permanent also, and will likely continue to increase in acuteness. In other words, it is plain that the cotton industry, manufacturing and producing alike, must face in the future in the item of labor an expense of \$75 to \$100 per month, or such a price as industrial plants may be paying.

Estimating the cost of labor on this basis has been sharply criticised. This was to have been expected. Most of these criticisms have come from the East. This was to have been expected also. The reasoning of these critics is based upon the assumption that the cotton growers would return again to a condition of economic slavery, or assume that they were not entitled to economic freedom. Some, in conversation with the writer, went so far as to say that a man's family could do part of the work, and beyond their keep this work would not be an expense. Altogether, in the final analysis, these things reflect the dominant point of view that has been current in New York and in the New England States.

A condition of economic servitude, it is perfectly safe to say, has forever passed in the South. This is a matter of felicitation among all forward-looking men. The

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of the National Association of Cotton Manufacturers, will preside. Magnus W. Alexander, managing director of the National Industrial Conference Board, will prepare the program for this discussion and will discuss important phases of labor problems under war conditions. A special symposium on this subject will be arranged by Mr. Alexander, and this will be introduced by charting on the blackboard various vital factors and their relation to each other. Members of Mr. Alexander's staff and other experts will give 20-minute talks on each of the important points, and before closing a general discussion of the whole subject will be open to the members.

At the third group meeting, at which "War Problems in Industry" will be discussed, Fuller E. Callaway of Lagrange, Ga., president of the American Cotton Manufacturers' Association, will be chairman. Those participating will include William Butterworth of Moline, Ill., who has been prominent in co-ordinating American industry for war work; Arthur R. Marsh, editor of the Economic World, and William S. Gould, president of the Fuel Engineering Co., New York city. General discussion will follow these formal addresses.

At the fourth group meeting, devoted to "Research as an Aid to Industrial Efficiency," Edwin Farnham Greene, former president of the National Association of Cotton Manufacturers, will preside, and the speakers will include Dr. George E. Hale, who will deal with the work of the National Research Council, of which he is chairman; Dr. Edward R. Weidlein, associate director of the Mellon Institute at Pittsburgh, and Dr. Charles L. Reese, chemical director of the E. I. du Pont de Nemours & Company, Wilmington, Del.

On the afternoon of May 3 the annual business meetings of each association will be held for the receipt of reports of the resolutions and other committees and the election of officers.

The joint banquet will be held under the auspices of the National Council of American Cotton Manufacturers, and Stuart W. Cramer of Charlotte, N. C., vice-chairman of the National Council, will act as toastmaster.

The convention committee of the two associations are:

Hotel for 200 rooms with bath, and reservations for these can be made with W. D. Adams, secretary of the American Cotton Manufacturers' Association, Charlotte, N. C.

FALLACIOUS HOPES FOR CHEAP COTTON

New England Spinners Warned by Correspondent That Day of Economic Servitude in South Has Passed—Labor's Cost Will Hereafter Figure in Cotton Price.

By W. W. MORRISON, New Orleans, La.

The cost of growing cotton is attracting much attention. The discussion is assuming a wide range, and promises in the end to be wholly constructive. It has already been far advanced among the cotton growers, hence an extension of the discussion will likely be from now on more beneficial to the spinner than to the planter. Especially does an extension of the cotton growers' point of view in the East promise to be of definite value to the spinners of New England.

That it is to the interest of the New England spinners to cultivate a greater hospitality for the point of view of the cotton producers is fully sustained by the records. Many papers and some future brokerage firms in the East have tried in many ways to discredit the importance of the way the cotton growers regarded the cotton situation. Notwithstanding they have been continuously reversed by the course of the market and under conditions that clearly indicated their opinions to be founded on primary errors, they have been most persistent. Only recently an Eastern firm issued a statement estimating the cost of the crop of 1917 at 11.28 cents per pound. This belongs to the Eastern point of view, which has been notoriously misleading.

The consumption of standard dry goods, corn, flour, meat and fertilizers make up the major part of the expense in growing cotton. On the 17th of March, 1917,

whole trend of life in the cotton industry, economic, industrial and commercial, is definitely toward the consumer of cotton having to pay for the coming crop, and all crops in the future, a price that will bring to the grower, whether he is a wage-earner or has an interest in the crop, a return for his labor more than \$75 or \$100 per month, or any price that industrial plants may be paying. The cotton grower is in position to enforce this, and he can be expected to do it. This is essentially the growers' point of view. We have seen the folly of ignoring his point of view in the past, and events certainly emphasize that it will be just as great an act of folly to ignore it in the future.

Crop preparations seem to be generally up to normal. The second draft will likely be against any important extension of cotton acreage.

\$2,600,000 for Montgomery Airplane Station.

Approximately \$1,000,000 will be expended by the War Department for building an airplane plant at Montgomery, Ala., this work to be under the direction of Capt. H. R. Eyrick, who is in charge of construction at Montgomery, Americus, Ga., and West Point, Ga. This plant will be equipped for repairing airplanes and supplying airplane parts to all airplane stations in the South. It will occupy a 400-acre site and the specifications are now being prepared. When completed, the establishment will require the employment of 1000 skilled mechanics, who will locate at Montgomery with their families, thus adding a population of probably 4000 to that city and largely increasing its general business.

The Government will also increase Taylor flying field at Montgomery by 33½ per cent., and all the future buildings will be of steel construction, these new buildings including four hangars, with a machine shop and an oil warehouse. The original estimated cost of this flying field with its facilities was \$1,250,000, and the new decision will increase this to \$1,600,000.

Fighting the Dragon*

By SAMUEL HARDEN CHURCH, President of Carnegie Institute, Pittsburgh.

Once I saw in the British Museum the manuscript of the very first piece of literature which came to break the intellectual darkness of England—the story of Beowulf, who came into a country not his own and saved the lives of the people by slaying the dragon, but losing his own life in the battle. That is the splendid mission of America—to go into a country not her own and save the lives of the people by slaying a dragon, and if in doing that she is required to sacrifice a part of her own life—as indeed she has already done—why then I believe that the scriptural promise is true of nations as of individuals, “He that loseth his life shall find it.”

America is in this war because she was directly attacked by Germany. Her ships were sunk, her foreign trade was destroyed, her territory was threatened with partition, her industrial plants were blown up, her people were murdered, and all this and much else furnished the immediate justification to take her part in the strife. She is on the battle line in France because if she were not there her battle line would be New York in less than six months.

But I like to think, and so do you, that notwithstanding these particular grievances, our country was really moved to action by the higher call to human service in the world's task of saving civilization from those who are assaulting its foundations. But while your boy and mine are carrying the flag in France, let us see to it that there is no weakening in the spirit of the nation at home, from which those boys draw their fortitude just as surely as they drew their milk from their precious mothers a few short years ago.

We have lately had the story in the papers of four American soldiers sentenced to death for sleeping at their posts. Now, if an American soldier is going to

former German would absorb this doctrine into their secret souls, for the German Government is more autocratic today than when it drove Carl Schurz into exile and executed thousands of his associates who had attempted to reform it.

But there are other Germans in this country who, whether they are naturalized or not, can never be anything but Germans in heart, soul and language, and we detest these people because they are not only false to America, which they have chosen so that they and their descendants may live a larger and freer life, but because they are false to that better Germany which their fathers tried to create, and failing to create came to this country in order to enjoy the liberty which was denied to them in Germany. The revelations which have just now been made before the Congressional committee in regard to the German-American Alliance shows that this spirit of Germanism is an insidious and constant poison in the heart of our nation. Mr. Theodore Sutro of New York city gave expression to the soul of this faithless citizenship when he testified that the song “Deutschland Über Alles” means that Germans are over all other countries in their devotion to Germany. I think you will remember that the first manifestation of this German poison in our national life occurred about 25 years ago when Cahensley, a member of the German Parliament, proposed that all emigrants to the United States should be preserved in their native languages, customs, religions and manners and not nationalized into the real citizenship of the American people. A very courageous and far-seeing statesman, a dear friend of mine, Cushman K. Davis from Minnesota, attacked that proposition in the United States Senate, giving it the name of Cahensleyism, a word which you will find in

diplomat who telegraphed his government to sink the Argentine ships and leave no trace was criticised by the German newspapers in this country not because of his infamous plan, fully approved in Berlin, to murder the crews and passengers of a nation with which his country was at peace, but because his correspondence was intercepted and printed. The Bible takes the measure of these men and all men like them when it declares: “As a man thinketh in his heart, so is he.” There is but one safe course for the Government to take, and that is to suspend all these German language newspapers for the period of the war, and until they are suspended each community should require as a mark of loyalty that no American who seeks to be respected by his neighbors shall either read them or advertise in them.

It is frightful to contemplate the continued existence of the German Empire as it stands today—a thing,” says President Wilson in speaking of it, “a thing without conscience or honor or capacity for covenanted peace.” Why? Because its only guiding power is military force. It is frightful to think that there exists in the heart of the world a military power which has declared with a thousand articulate and vociferous voices that it intends to subjugate the whole of Europe in this war. The leading purpose in this world conquest is to enslave and not to elevate the people who dwell in the peaceful territories of her neighbors. Is proof needed? Take Alsace and Lorraine. During the 50 years of German occupation not one word of benevolent interest in the welfare of those hapless children of old France has been uttered in Germany. She has ruled them as she is now ruling Belgium and northern France—with her mailed fist. She has not even permitted them to speak their own language or sing their own songs.

Let me show you a contrast between a civilized and humane nation and a nation which Goethe characterized as ferocious brutes. When this war began there came the test of British civilization. It was a

When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

be shot for going to sleep at his post and endangering the front, we should demand that every German spy and propagandist shall be shot for endangering the rear. The other day a deserter from the army said that he had been corrupted from his loyalty by reading Senator La Follette's speech. The boy was sent to prison, and the man who corrupted him ought to be expelled from the United States Senate as a public nuisance.

We can never overcome the foe in front unless we shall effectively restrain the foe at the rear. The test of loyalty is a simple one. There are no longer any German-Americans. That name is dead forever. They are either Germans or they are Americans. No man cherishes a higher regard than I do for those American citizens of German birth or German parentage who are truly able to unite their love for our flag with their detestation of this German outrage. There are millions of former Germans in this country who are now fully absorbed, heart, soul and language, into the great body of Americanism. I know hundreds of such men in Pittsburgh, and you have hundreds of them here in New York—like Mr. Franz Sigel, Mr. Jacob H. Schiff, Mr. Otto H. Kahn and the society known as “The Friends of German democracy”—men of such probity and honor all through our nation that we would trust them to hold control of the chief citadel against the Kaiser himself. A good many years ago I had the honor of meeting Carl Schurz at Deer Park, Md., and that gifted man, whose name is an illustrious one in American history, came over to a group of us young men where we were seated under the cool shade of a great oak tree, and after shaking hands with a cordiality which became to each one a living memory, pointed to the flag over the hotel and told us that we should feel grateful in our hearts that we were all citizens in a country where liberty had free existence, as it had been his own unhappy fate to be driven out of Germany because of the tyranny of her feudal system, and that there would be no liberty for the German people until that feudal system was destroyed. I wish that the former countrymen of that

the Century Dictionary accredited to him as its coiner, and his speech upset that plan in so far as it was intended to be an open campaign. But the snake was only scotched, not killed. The iniquitous principle of the double sovereignty has enabled Germany to keep a deathless grip upon the loyalty of thousands of her former citizens who have been naturalized in this country, and when the hour of our danger arrives and we find ourselves attacked, these children of our adoption turn against us in faithless allegiance varying in degree all the way from sullen hatred to active sedition, riot and murder.

Another source of constant danger is the German newspapers which are published in this country. In New York you have the *Staats-Zeitung*. One of its editors, Mr. Bernard H. Ridder, came to Pittsburgh a year or more ago and did me the honor to challenge me to a public debate on the righteousness of Germany's cause, and he offered to pay all the expenses of the enterprise. I hope it is needless to say that the debate never took place. But soon afterwards the State Department at Washington made its revelations of the Bernstorff expenditures, and you will remember that \$20,000 of this propaganda fund was paid to the Ridder. Since that time Mr. Ridder has repeatedly and sneeringly attacked Colonel Roosevelt, James M. Beck and other earnest citizens as firebrands and fools whenever they have spoken for our country. In Pittsburgh we have a German newspaper which has recently declared that the Declaration of Independence ought to be burned by the common hangman, and I have within these past few days seen a letter from the editor of that paper, Mr. George Seibel, protesting against the use of the word Huns as commonly applied to the German people.

So it goes with these German newspapers all over the land. They are at present held in a sullen and malignant restraint by the new law which their own treasonable conduct made it necessary to enact. But while moving now with due caution, they all show an ill-disguised wish that Germany shall win this war. Who has ever read one word of denunciation of German outlawry in any of these publications? The German

good time for England's colonies to cut loose and leave her to fight her own battle. She had no power to coerce one man outside of her own little island Kingdom. What was the result? You have seen that picture in Punch where the British Lion stands on a mound emitting a roar which only a lion can emit, a roar which comes from the depths of his nature, and from every quarter of the globe his cubs respond—Australia, New Zealand, Canada, India, Egypt.

How was it with Germany? When the first blast of war blew on our ears, when Germany had been ruling those French provinces for half a century, 50,000 of the men of Alsace and Lorraine gave up home and property and fled across the border to range themselves under the only flag their hearts could ever recognize, the ancient oriflamme of France. Not a man who could escape the impressment would fight for Germany.

And take England once more. She had conquered South Africa and given the Boers a complete liberty and self-government of which they had never dreamed of in the days of their own tyrant, Paul Kruger. But here was their chance to revolt. Did they take it? When they saw peril approaching that precious heritage of human government which has been expanding itself throughout the world from the day when the Mighty Charter was established on British soil at Runnymede the last Boer turned from his farm and his mine and joined the fight for liberty under the British flag.

And how is it with France? If it is ever possible that all the nations of the world can be assembled on some Elysian Field where a divine Commander-in-Chief shall ask: “Which among these nations has in ancient or modern times shown the most valor, sacrifice and suffering?” I am sure that all mankind with one voice will respond: “It is France!” We can say of her now, as Shakespeare said of her in the time of King John: “France, whose armor conscience buckled on, whom zeal and charity brought to the field, as God's own soldier.”

The question now is whether Japan shall move by land against Germany in the Far East. That brings

*Extracts from address delivered by Samuel Harden Church, president of Carnegie Institute, Pittsburgh, before the Republican Club of the City of New York.

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up Russia. Everybody has a profound sympathy for Russia. The trouble there is that the people of Russia have been held through all these centuries in a pitiable ignorance and superstition. The illiteracy there is more than 80 per cent. of the total population, and when they have overthrown an oppressive and corrupt government by revolution it is a moving and pathetic sight to see them without knowledge or experience of the capacity to form a government going plunging every day deeper and deeper into the abyss of civil strife and general anarchy. Great things were hoped for from Mr. Kerensky. But the task was too large for him—possibly it was too large for any other man. Then came Lenin and Trotsky. We do not know yet whether they are incompetent dreamers or corrupt German agents, but we do know that they have wrought the complete disintegration of Russia. Just think of it! When France was looking for a military genius worthy to succeed the mighty Joffre, and when England was retiring Sir John French in order to put the best soldier in the Empire at the front, Lenin and Trotsky reduced their trained officers to the ranks and elevated a ranting youth who had never seen service to be Generalissimo. Is it any wonder that the Russian army fell away like a rope of sand? But somewhere in Russia there are many millions of people who represent the best progress of that race and who stand ready, as quickly as a capable leader can force his way to the front, to establish a government which shall maintain law and order, and in the best way preserve the Revolution for the good of the whole population.

In the meantime, the fear lest we may give these crafty Russian adventurers, Lenin and Trotsky, an excuse to unite their disrupted forces with Germany is holding back our statesmen from employing the almost inexhaustible military resources of Japan and China in this mighty task of our League to Enforce Peace. Don't let us forget Lloyd George's declaration of two years ago: "We are always too late!"

chief of the Great General Staff, has published a book within this last month to say the same thing. Even while Von Hertling was making his adroit speech in avoidance to peace in the Reichstag, General Von Liebert was giving utterance to the real mind of Germany in these words: "We hold that Might is Right. We will incorporate Courland and bring into our own population 60,000,000 Russians. We must have Belgium and the north of France. The curse of God is upon the French people; let us consider ourselves fortunate that he has separated us from that people which is as ungodly as it is infamous. The Portuguese colonial possessions must disappear. France must be made to pay until she is bled white."

The Emperor says that he will have no peace until with bloody fist he has crushed his victim to the earth. He wants no reconciliation. Neither should we. Let us show Germany by a hundred years of social and commercial ostracism that her crime is beyond forgiveness until her children's children beg for it with contrite hearts. And in the meantime mobilizing without further delay all the resources of our civilization, let us develop and press forward with our holy crusade until we shall have rescued Belgium and France and Italy and all the oppressed countries from the grasp of the barbarian, and established the world upon the foundations of righteousness, so that liberty shall walk unafraid and leaning upon the arm of law.

Texas Headed for State-Wide Prohibition.

Austin, Tex., March 15—[Special.]—With overwhelming majorities in both House and Senate, the Texas Legislature has followed the suggestion of Governor Hobby and has passed a bill prohibiting the operation of saloons within 10 miles of an army or naval camp, post or garrison or within 10 miles of any shipbuilding plant. The bill becomes effective April 15, having received more than the two-thirds majority required

MISSISSIPPI'S HIGHLY PATRIOTIC PURPOSES.

Stirring Statement of Aims Provide Example for Other States to Follow.

Jackson, Miss., March 18—[Special.]—Mississippi's first war conference, at which every agency at work in the State for victory over Germany was represented, came to a close Saturday afternoon with the formulation of plans for complete co-operation among the various bodies doing war work and the determination to throw every ounce of the State's resources into the struggle.

Secretary of Agriculture David F. Houston, the first cabinet member to visit the State since war began, was the chief speaker at the conference. Two thousand people crowded the largest auditorium to hear him. The entire meeting was marked by the greatest enthusiasm.

Secretary Houston's address concerned itself with a delineation of Prussian ideals of government and with America's own contrasted principles. He declared the war today was the old struggle of might against right, of medieval autocracy against modern democracy. He said America had the resources to win, but victory would not come until every person in every State realized what the war meant and what a disaster defeat would be. He scored obstructionist politicians and profiteers. "I cannot conceive of a man who would be so mean as to wish to make money from the greatest tragedy in human history," said the Secretary.

Pacifism and vague internationalism, Secretary Houston declared, were bearing fruits in Russia, and he hoped the American people would learn to turn from these fatuous faiths. One of the most significant passages in his address dealt with the world-wide labor movement. He said the American people had shed blood before to rid themselves of the domination of one class, and they were not likely at this time to allow themselves to be dominated by another class.

Demagogues who sought to bring class consciousness to life, the Secretary stated, were menaces to democracy.

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Don't let us forget that while we constantly hesitate and thereby lose every advantage, Germany works ceaselessly with her military forces, her corruption funds, and her sleepless propaganda to win the war.

Mr. Taft said in Pittsburgh the other day that he wants an American army of five millions. That is the right way to start. But we must do more. We must organize the world in its remotest parts in this fight to restrain the outlaw. Let us induce Japan and China to come in with their fullest force. We know that they will come with clean hands and a pure heart. In calling Japan at a critical hour we mean to save Russia from shameful and complete dismemberment and to start her upon that slow process of uplift which can be reached not in the first stroke of revolt but only in the lengthened flight of years.

And in the employment of force against Germany we should not stop with Japan and China. We need every ounce of hitting power which the world can give us. There is India with her enormous resources, loyal and ready to play a great part. Brazil should be encouraged to move her army and navy at once to Europe; and so should every other nation either great or small who has thus far joined our league—Panama and Cuba among them. And with those nations which still are neutral let us plead the cause of humanity to induce them to take their part—Argentina and all the others on this side, and those six powers still at peace in Europe—Spain, Denmark, Norway, Sweden, Holland and Switzerland—who have been so brutally abused by Germany, Norway alone having had 800 of her ships sunk and more than 5000 of her citizens murdered without a trace on the high seas. Then shall we have all the banners of civilization floating together on those battle fronts both west and east of Germany, and we shall soon crush her into submission.

Oh, my friends, this bloodshed will have been in vain if we are going to add reconciliation to peace without penitence of the criminal. Von Bissing says there must be no reconciliation but only a rest in order to prepare for the next war. Von Freytag, their deputy

site to put a bill in force earlier than 90 days of its final passage.

The bill also provides that saloons cannot be licensed unless located within an incorporated town or city, and this will effectually remove the temptation for liquor dealers to move just outside the 10-mile zone and ply their business.

On April 15 the saloons of San Antonio, Galveston, Fort Worth, El Paso, Wichita Falls, Orange, Port Arthur, Beaumont, Brownsville, Del Rio, Eagle Pass, Houston and Laredo, as well as smaller towns located adjacent to army camps and shipbuilding plants, will be closed. Approximately 1450 saloons will be affected.

Not only will the saloons be closed, but residents within the 10-mile zone will be prohibited from importing liquor into their homes or places of business for any purpose except for scientific, sacramental, medicinal or mechanical purposes, under pain of being prosecuted in the courts for a felony.

Austin, Dallas, Waco, Corpus Christi and other cities that are now dry and that have army camps also come under the 10-mile law and the importation of liquor therein is forbidden.

Another bill to make the entire State dry by statutory prohibition, effective June 27, shows every indication of a successful course through the House and Senate at the present special session that closes on March 26.

\$477,000 Pier and Quay Wall.

The Government has awarded contract at \$477,024 for building the pier and quay wall at Pensacola, Fla., for which proposals were recently invited. F. C. Proudfoot of Tampa is the contractor, and the pier, with its wall, will form a breakwater for the protection of airplane hangars and other departments of the Government naval air station at Pensacola. This pier will project 581 feet into the harbor, and it will be 60 feet wide, constructed largely of concrete, with reinforced concrete piling and creosoted wood piling below the upper structure, including railway tracks on both sides.

He pointed again to Russia as a nation ruled by one class. True democracy, he averred, is ruled by all the people, regardless of class lines.

The nation that produces most will win the war, said the Secretary, and unless America produces her maximum of foods, ships, munitions and fighting men, defeat will be hers.

The cabinet member's speech was free from rhetorical flourishes; it was simple, concise and pointed. He was followed by Lieutenant Paul Perigord of the French army, a Catholic priest of St. Paul, Mich., who fought through the battles of the Marne and Verdun, and who was promoted at the Marne for gallantry in action. The French officer's message, he said, was from the heart of France. He was cheered and applauded to the echo as he told of France's part in the struggle and of what America must do to make the world safe for democracy.

Plans for the immediate organization of county councils of defense in every county of the State were laid at the meeting. These councils will have representatives from each of the national war agencies—Speakers' Bureau, Four-Minute Men, Food Administration, Fuel Administration, War Savings Stamp Committee, Liberty Loan, Red Cross, Woman's Council of Defense, Federal Working Reserve, Farm Demonstration Agents, Knights of Columbus, Home Economic Agents, Boys' Working Reserve, Y. M. C. A., Y. W. C. A., County Superintendents of Education, Shipbuilding Committee, and such other agencies as the County War Council shall recommend.

Each county will start a campaign to bring about this end at once, and will raise \$100 to defray costs of organization. The Legislature has been asked to appropriate \$25,000 for the work at once. The National Defense Council has set this amount as the minimum needed in Mississippi for 1918.

Every one of the war agencies here mentioned had representatives at the meeting, and reports were made on the work already done or planned. Under the proposed plan of reorganization, duplication of effort will be avoided.

The meeting was packed with patriotism. Last year the State did a good bit of war work, especially in the

line of producing foodstuffs, but there was no such general awakening to the gravity of the situation as there is this year. In recent weeks the largest planters of the Delta have organized to keep down cotton acreages, war gardens by the thousands have been planted, Liberty Loan and War Saving Stamp machinery is running smoothly, Red Cross work is going ahead full speed, and there is very evident a spirit of utmost determination to win the war, no matter what the cost.

Mississippi's new aims in the struggle were set forth at the conference as follows:

To furnish its full quota of able-bodied fighting men.
To go over its allotment in every Liberty Loan and War Savings Stamp campaign.

To stamp out treasonable rumors, words and acts as it would contagious, death-bearing diseases.

To observe to the letter the regulations of the Food Administration in every home and public dining-room.

To produce sufficient food and feed—corn, hogs, poultry, milk, potatoes—in every community for the needs of that community.

To lay in sufficient wood during the summer to forestall a fuel shortage in the winter and to release coal for trains and ships.

To contribute its part toward the Red Cross, Y. M. C. A. and Y. W. C. A. work.

BIG DEFENSE MEETINGS IN LOUISIANA.

Telegram of Counsel From the President—
Secretary Houston There.

The State Council of Defense of Louisiana held two meetings last week at Shreveport, on Thursday and Friday, respectively, and on Saturday at New Orleans. David F. Houston, U. S. Secretary of Agriculture, a member of the Council of National Defense at Washington, was the principal speaker from outside the State, but other important speeches were also made by

Influence of Group Insurance on Industrial Efficiency and Labor Unrest

In recent years increasing attention has been given by large employers of labor to the questions of greater efficiency and more contentedness with their work on the part of employees. It has been found that the adoption of well-conceived plans along these lines have proven a splendid investment. Among such plans that of group insurance has been attracting considerable attention, and many of the large industrial plants of the country that have put this into effect claim to be well pleased with the way in which it has been received by their employees.

At the Southern Textile Exposition, held in Greenville, S. C., last December, there was an exhibit by Thomas & Thomas of Atlanta, Ga., and Baltimore, Md., specialists in this type of insurance, showing what has been done in this line in the South. This exhibit attracted considerable attention, because quite a number of Southern cotton mills have already adopted group insurance and others are giving it consideration.

In discussing the development of group insurance among Southern industrial plants in connection with this exhibit, a representative of the MANUFACTURERS RECORD talked with Mr. F. Elliott Thomas, of this firm. Mr. Thomas stated that some three years ago a suggestion was made to him that he investigate the application of life insurance to cover a large number of employees of Southern cotton mills. This suggestion came from one of the leading cotton mill executives, who operates a number of mills in Georgia. Group insurance, he knew, was in existence, but the need was to find a plan exactly suited to the conditions as they were found in the South. After a constant

employes have adopted a bonus plan for increasing this insurance as the length of service increases, the direct benefit of this being that it quiets the restless disposition of the floating element because, as the employee's insurance increases, he would hesitate before leaving and thus lose the added insurance he has won for himself by his length of service.

Manufacturers have stated that the effect of this has been to reduce labor turnover and to eliminate to an appreciable extent migratory labor, which has always been a serious problem.

Employers using group insurance have also claimed it has proven especially effective during these times when it is so hard to secure and hold desirable labor, because they have found that it acted to bind their employees to them. Many plants that have been granting extra wages or bonuses to their employees have taken a portion of this and applied it to group insurance, and, as soon as this has been in effect long enough to enable the employees to appreciate the benefits they have expressed themselves as well pleased with this method of applying a bonus.

Plans have been worked out which enable group insurance to be placed with all classes of commercial and industrial establishments where more than fifty persons are employed, and the details have been arranged to meet the requirements and conditions of all varying types of commercial and industrial organizations.

Details in connection with handling the insurance have been greatly simplified so that practically all of the clerical work is handled by the insurance people,

When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

Dr. James A. B. Scherer, official representative of the National Council and the United States Shipping Board; Governor R. G. Pleasant of Louisiana; Mayor Ford of Shreveport; Harry D. Wilson, Louisiana Secretary of Agriculture; John M. Parker, State Food Administrator; John G. O'Kelley, State Fuel Administrator; Leigh Carroll, State Director of the Red Cross; Dr. P. H. Saunders of the War Thrift Stamp Committee; T. Sambola Jones of Baton Rouge, head of the speakers' bureau of the State Council of Defense, who presided at the Shreveport meeting; Prof. T. F. Moran of Perdue University; M. L. Alexander, chairman of the State Conservation Commission; Mayor Whittington of Alexandria, La.; Duncan Buie, head of the State Highway Department; Lieut. Paul Perigord of the French army, and others.

A telegram from President Woodrow Wilson was received, in which, after extending greetings, he said: "I am sure the leaders of Louisiana will seize this great opportunity to plan, through similar county conferences and through meetings at every country crossroads, to carry everywhere throughout the State the message that we are fighting not for conquest, but for justice; not for dominion, but for fair and open dealing among the peoples of the earth."

The purpose of the meetings was to make clear to all in attendance the aims of the United States in the great war and to stimulate and unite in hearty sympathy the efforts of all the people of Louisiana toward winning the great conflict for human rights and liberty throughout the world, and to also impress upon everyone the necessity of guarding against spies. Representatives were present from all parts of the Commonwealth, 28 parishes having their spokesmen on hand.

The speakers' bureau of the Louisiana State Council of Defense following the meetings immediately resumed its intensive State-wide campaign to awaken everybody to a realization of the meaning of the war, to its vast extent, to its probable duration, and also to the supreme efforts that will be required to win. According to the program for this campaign, which is prepared for a week ahead at a time, addresses will be made at 65 different places by the Governor and other prominent men of the State.

study and investigation extending over a year and consultations with mill executives to thoroughly analyze Southern conditions, a plan was worked out which has eventually proven adaptable to the situation in the South.

For nearly two years this plan was worked upon before any material results were secured, the aim in the meantime being to thoroughly test the system so that it would meet all of the varying conditions that existed. That the plan as worked out was a sound one is indicated by the fact that during 1917 this firm placed group insurance with over 100 corporations, involving the lives of tens of thousands of employees and protecting them and their dependents for many millions of insurance. The results following the placing of group insurance with these different concerns were watched closely to fully ascertain how it was received. Executive officials claimed that almost immediately after they had put this insurance into effect, a new spirit seemed to exist among their employees, and later as the benefits were realized, there come into existence a somewhat closer bond of relationship between employer and employee.

As was expected, the employees were not quite so quick to perceive this influence, but after it has reached a point where they could measure the benefits through the death of some fellow-worker, the value of the insurance was indelibly impressed upon their minds.

Careful tests have been made by both the insurance companies and employers of the advantages accruing from group insurance, both from the standpoint of the employer as well as the employee, and from these investigations it is claimed that this insurance inspires the employee to protect the interests of the employer, and induces greater efficiency and increased production; it tends to attract and retain the better class of labor, and has increased the productive worth of the employee, due to the better physical and mental conditions it brings about by relieving him of worry as to how his dependents would get along in event of his total or permanent disability and the extra provision it makes for his family in case of death.

Most of those taking out group insurance for their

and no physical examinations are required in connection with this type of insurance.

A close study of the results following group insurance seem to give it a place of permanency among the plans of proven worth for increasing industrial efficiency and adding to the contentedness and welfare of employees.

Progress on New Orleans' Proposed Industrial Canal.

New Orleans, La., March 13.—[Special.]—The Capital Issues Committee of the Government has approved the bond issue of \$3,500,000 to begin preliminary work at once on the proposed industrial canal between the Mississippi River and Lake Pontchartrain. The amount can be increased by another million if within 30 days of the contract being signed with the banks it is seen to be necessary.

Already the location of the basin proper has been decided upon, though the route of the canal connection with Lake Pontchartrain has not yet been determined. The next step, therefore, will be the preparation of plans and specifications concurrent with the choosing of a definite right of way.

George W. Goethals & Co. of New York will be engaged to design and build the canal and locks connecting it with the river, it is announced.

The Cotton Movement.

In his report of March 15 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 227 days of the season was 9,893,130 bales, a decrease under the same period last year of 1,300,963 bales. The exports were 3,077,872 bales, a decrease of 1,133,391 bales. The takings were, by Northern spinners, 1,783,227 bales, a decrease of 385,214 bales; by Southern spinners, 3,398,802 bales, a decrease of 83,813 bales.

CHROMITE IN NORTH CAROLINA.

By DR. JOSEPH HYDE PRATT, State Geologist.

Chromite is one of the minerals the production of which has been affected by the present war. This has caused renewed interest in the deposits of this mineral in this country, and is directing attention to the North Carolina deposits. The occurrence of chromite is in the peridotites and allied igneous basic magnesian rocks, or in serpentines that have resulted from the alteration of these.

The mining of chromite in this country has always been attended with considerable uncertainty on account of the pockety nature of the deposits, for chromite is not found in veins, but in pockets or bunches of varying dimensions, which may or may not be connected with one another and are limited in extent, so that with the exhaustion of a particular pocket of chromite there will often be more or less dead work to be done before another is encountered. Usually no estimate can be made regarding the amount of chromite on a property beyond that which is exposed by the actual work done. The fact that 10 tons or 10,000 tons have been taken out of one pocket does not signify that it is still a good deposit, but if a certain pocket has been productive of a large yield this would serve as a strong indication of the existence of other pockets nearby. Yet, if a deposit of this mineral is found near the contact of peridotite and other country rock, and if this peridotite formation is very extensive and the chromite is found in considerable quantity, there is a probability that large deposits will be found in the area.

While chromite is found almost universally associated with the peridotites of North Carolina, it is only in a few localities that it occurs in quantity. One of the most promising deposits in the State is in Yancey county at Mine Hill, on Mine Fork of Jack's Creek, alongside of the Bakersville road, five miles north of Burnsville, the county-seat. The ore occurs in a large

further development, and its nearness to the railroad is also greatly in its favor.

All North Carolina ores are high grade. The existence of large deposits have not as yet been conclusively shown, but the four localities mentioned above are worthy of further investigation.

Tin Deposits in Virginia.

The United States is almost entirely dependent on foreign countries for its supply of tin. As this metal is a war-time necessity, and as a domestic source of supply is urgently needed, all known deposits of tin ore (cassiterite) in the United States have recently been examined by geologists of the United States Geological Survey, Department of the Interior. One of the most promising of these deposits is in the Irish Creek district, in the eastern part of Rockbridge county, Virginia, near the summit of the Blue Ridge. This deposit was recently examined by H. G. Ferguson of the United States Geological Survey, which in this research is acting in co-operation with the Virginia Geological Survey. Mr. Ferguson's report has been published as Bulletin XV-A of the Virginia Geological Survey.

The existence of tin ore in the Irish Creek district has been known for many years, and between 1883 and 1893 the deposit there was actively mined. The mining company, however, became involved in litigation as to land titles and abandoned work in 1893. Work on the deposit was never resumed, and the old workings are now caved and heavily overgrown with brush, so that a thorough examination of them is difficult, but what Mr. Ferguson saw in the field and the information he derived from old reports led him to conclude that the deposits along the Blue Ridge in this vicinity offer some promise as a source of tin, both through the systematic working of the known veins and the possible discovery of other deposits.

The cassiterite occurs in quartz veins that cut a

through county agents, announced it would supply the farmers, in the Mobile farming section alone 100,000 tons of nitrate was ordered.

It has been a month or more since the orders were placed, but farmers say they have not been able to hear from the national capital. One authority stated today that unless this nitrate arrives in the South very soon the fertilizer will be too late to benefit truck growers.

An explanation is going the rounds here that the Department of Agriculture has been besieged with so many calls for nitrate that the Government will not be able with its limited supply to ship the amount asked by applicants; that it will necessitate the department pro rating the nitrate.

Appeals have been sent from Mobile to Food Administrator Herbert C. Hoover and to the State Food administrator at Montgomery, Ala., calling attention to the Southern farmers' plights. Their assistance is being sought on the ground of the crying demand for more foodstuffs. It is also pointed out that if farmers in the extreme South are supplied now the emergency will be met. Incidentally, it is suggested that vegetable growers farther North can afford to wait a week or so longer, but that there cannot be any more time lost down here.

It is also learned that Director-General W. G. McAdoo has been asked to take action insuring prompt railroad transportation for fertilizer consigned to Southern farmers.

The Situation as Washington Views It.

Washington, D. C., March 19—[Special.]—That there has been some delay in getting nitrates to the farmers is admitted by the officials of the Department of Agriculture, but it is maintained that this has been unavoidable, and may be charged to the general difficulties caused by the war. The shortage in ships is

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peridotite formation which outcrops on both sides of the road. What little work has been done on this deposit gives indication that chromite occurs in quantity. The C. C. & O. Railroad from Erwin, Tenn., to Green River Station, North Carolina, runs within 3½ miles of the property. An analysis of a selected sample of this chromite showed 58 per cent. of chromic oxide, but judging from the character of the ore, a 52 per cent. ore can probably be readily obtained by hand-picking and cobbing. The property is owned by J. Bis Bay of Burnsville.

Associated with the large peridotite area or formation in the vicinity of Webster, Jackson county, chromite has been found quite abundantly at a number of points near the contact of the peridotite with the country rock. The principal work has been done on the lands of David Schneider, Joseph Hooker, Lawrence Burress, Alf. Wilson, James Ashe and Daniel Fulbright, all of Webster, N. C. The work done shows the presence of a considerable amount of chromite, but it is not sufficient to demonstrate whether it is to be found in sufficient quantity to make profitable mining. These chromite deposits would be from three to five miles from the railroad.

Another property that is being developed is on Big Ivey Creek, in Buncombe county, about 16 miles northwest of Asheville and nine miles from the railroad. There is considerable chrome sand on the property, which is readily concentrated, and, as reported, the concentrates contain 54.09 per cent. of chromic oxide. The rock ore, which had been hand-cobbled, gave on analysis 48.78 per cent. of chromic oxide. This property is being developed by Mr. F. L. Plaisance of Asheville.

A promising deposit of chromite occurs in the Balsam Gap peridotite area and is located on both side of Dark Ridge Creek about 175 yards to the south of the Dark Ridge trestle of the Murphy branch of the Southern Railroad. A number of open cuts and pits have been made which show the presence of chromite in some quantity. There is a large quantity of float ore in the vicinity, which, with a nearness to the contact of the peridotite and gneiss and the pockets and veins already uncovered, point to this locality as a promising one for

granitic rock of peculiar appearance known as a hyperssthene granodiorite. The veins do not continue for long distances and their content of tin is probably very irregular from place to place. Some high-grade ore was found, however, and some tungsten ore occurs with the cassiterite. It is believed that the district is worthy of further investigation.

A copy of the report, Bulletin No. XV-A of the Virginia Geological Survey, may be secured on application to Dr. Thomas Leonard Watson, Director Virginia Geological Survey, Charlottesville, Va.

FERTILIZER SUPPLIES REQUIRED BY SOUTHERN TRUCK GROWERS.

Supplies of Early Vegetables for North Will Be Curtailed if Nitrates Are Much Longer Delayed.

Mobile, Ala., March 18—[Special.]—Delay in the arrival of Government nitrate is seriously handicapping truck growers of this section of the country. Unless fertilizer is quickly rushed South by the Federal Government the crop of spring vegetables is going to be seriously curtailed.

Southern Florida and points along the Gulf coast each spring are first upon the market with Irish potatoes, cabbages, beans and numerous other food crops. Cities as far west as Denver and all Eastern cities are supplied by Southern markets. When this crop becomes exhausted growers in more northerly truck centers begin to market their crops.

But vegetables cannot be grown in Gulf coast soil without fertilizer. Planting time is at hand; in fact, crops should be well out of the ground. But planting is seriously set back because farmers have not been able to purchase all the fertilizer needed. Not long ago, in Mobile, for instance, there was a limited supply of nitrate. Some nitrate brought as high as \$125 per ton.

When the United States Department of Agriculture,

said to be largely responsible for the failure of some cargoes to be delivered as scheduled.

Cargoes are now at Charleston, Wilmington and Savannah, and are being distributed to the consignees. Farmers in the Mobile section will be supplied from a vessel which is expected at that port within a week. In general it is stated that the distribution is progressing very satisfactorily and that deliveries can be made in ample time to provide for the early spring planting.

Although it may not be possible to furnish all farmers with their full orders from the first cargoes of nitrate, as the Department of Agriculture may find it advisable to distribute the fertilizer pro rata in sections where there is an immediate need, it is stated that all orders will be filled through future shipments. Officials state that the supply of nitrate will be ample to meet the demands.

Large Lumber Cut of Southern States.

Washington, D. C., March 19—[Special.]—The Southern States in turning out large supplies of lumber for shipbuilding, cantonments and the other manifold activities of the war have materially helped in swelling the lumber production of the country for 1917. The first estimate of the U. S. Forest Service indicates a total of 39,200,000,000 feet, based upon the reports of 845 sawmills, which each cut 5,000,000 feet or more of lumber in either 1917 or the preceding year.

Louisiana, Georgia, Florida and Alabama, among the nine States showing an increased production, reported an extra output varying up to about 10 per cent. The largest increase was in Missouri, where the gain over the 1916 cut was almost 44 per cent.

The Iron and Coal Trades Review (London) states that production in Germany of nitrate by fixation was 30,000 tons in 1913, 60,000 tons in 1914, 150,000 tons in 1915 and 300,000 tons in 1916. Production in 1917 is estimated to be at least 320,000 tons.

"Facing the Most Tremendous Challenge to Human Liberty in History"

John B. Winslow, Chief Justice of the Supreme Court of Wisconsin, in a recent address in Chicago reviewed the whole question of international law as it relates to Germany's fight upon civilization, and in closing his superb statement of the case said:

This list of violations of international law is by no means complete, but it seems ample for present purposes. They are all explained when we fully understand the one underlying and unchanging principle upon which Prussian military autocracy makes war and has made war since the days of Frederick the Great.

Article 13 of the Hague Code, regulating land warfare, expressly declares that "the right of belligerents to adopt means of injuring the enemy is *not* unlimited." To this statement the German War Book (Vol. 1, page 85, Morgan's translation) answers thus: "What is permissible includes every means of war without which the object of the war cannot be obtained. * * * All means which modern invention affords, including the most dangerous and most massive means of destruction may be utilized. * * * Bribery of enemy's subjects, acceptance of offers of treachery, utilization of discontented elements in the population, support of pretenders and the like are permissible; indeed, international law is in no way opposed to the exploitation of the crimes of third parties."

This is brutally frank, but very illuminating. It clears away all the clouds and makes it very plain that Germany's violations of international law are the deliberate and premeditated acts of the Prussian war oligarchy which rules her.

Along the same general lines Gen. Carl Von Clause-

tage amounts to necessity whenever the officer commanding on the spot is of that opinion.

"Yet these same innovators are eager to seize any pretext for charging their adversaries with some breach, as often as not purely fictitious, of the rules from which they claim unlimited dispensing power for themselves. We have now learnt the simple and comprehensive reason for this attitude. It would seem incredible if it were not established by abundant German testimony. In the fixed belief of the German leaders and most of their people, Germany is not a country having equal rights among equals, but the home of a superior race, entitled to impose its own policy and methods on the rest of the world by the use of any requisite degree of force, and not bound to treat men of inferior races as human beings unless and until they behave as docile subjects. Germany has rights, in virtue of a paramount mission to Prussianize the world. Germany's allies have rights because they are allies. Neutrals have just what Germany chooses to allow them, and enemies have none."

This tells the whole astounding story. We are face to face with a nation composed of people who believe themselves to be supermen, clothed with a God-given mission to conquer the world; people led by a ruler who believes himself divinely called to the task just as fully as Mohammed believed it, and with the same weapon, to wit, the sword.

If such a nation, imbued with such ideas and led by such leaders, wins this war against the united armies of the world, what becomes of international law, and what becomes of the principle that independent States

the better part. We have laid our all upon our country's altar; we have made the great decision.

We have put aside ease and luxury and softness of life so long as this great contest for humanity and liberty rages, and so long as the issue hangs trembling in the balance. We are not, and never have been, a nation of cowards. We have become prosperous and wealthy, but we have not lost our manhood, and we have not forgotten how to fight for human freedom. We know that it means hardship, and self-denial, and sacrifice, not merely for the soldier at the front but for the patriot at home, but these things must not and shall not move us. We remember that we are the sons of the men who, hungry and ragged, fought for eight long years against the greatest empire in the world to obtain freedom for themselves and for us, their children. We have pledged ourselves to be worthy of our heritage, and God helping us we will keep the pledge.

The spirit of the men who fought at Vicksburg and Gettysburg and Chickamauga, whether they wore the blue or the gray, whether they sang Dixie or the Star-Spangled Banner, the spirit of these men, I say, on whichever side they fought, still lives, and their sons and grandsons have gone forth side by side and shoulder to shoulder to show the world not only that Americans love liberty, but that they will die for it if need be. America will not, she cannot, look backward. She will fight freedom's fight and she will keep the faith. She has never yet failed in a struggle for human liberty, and now at this fateful hour, when, with dauntless spirit she is entering upon the greatest of freedom's battles, bearing with her the hopes, the fears and the prayers of humanity itself, she cannot fail.

Paducah to Have Big Cannery.

By January 1 the Nagle & McKinney Co. expects to pack 300,000 cases of canned products in a plant which

When the next Liberty Bond Loan is issued, on the anniversary of our entrance into the war, it should be instantaneously oversubscribed. Do not wait until the last moment to subscribe. Be ready on the opening day.

witz, in his book "On War" (1832), says: "War is an act of violence intended to compel our enemy to fulfill our will. * * * In such dangerous things as war the errors which proceed from a spirit of benevolence are the worst. * * * He who uses force unsparingly * * * must obtain a superiority if his adversary uses less vigor in its application. * * * To introduce into the philosophy of war itself a principle of moderation would be an absurdity."

Another German military authority writing in 1877, Gen. Julius von Hartman, says: "Military action must be determined solely in accordance with those conditions which usually prevail in war; in this sense it is completely ruthless. * * * It would be yielding to voluntary self-deception not to recognize that at the present time war must be conducted much more ruthlessly and much more violently, and that it must come much nearer to affecting the entire population than has previously been the case."

In these extracts we have the explanation of Germany's wholesale violation of international law in a nutshell. Her philosophy of war is absolutely at variance with all international law, and she does not hesitate to proclaim the fact and glory in it.

This attitude on the part of any great nation would be a constant menace to the peace of the world, but there is another consideration which makes such an attitude by the German people doubly significant and dangerous. That consideration has been well stated by an eminent English jurist* as follows:

"We are in the midst of a general war in which the validity of all rule, convention and usage appears at first sight to be shaken to its foundation. The rulers of the Central Empires and the leaders of their armies have not only acted as if the laws and customs of civilized warfare, the faith of treaties and the dictates of the commonest humanity were subordinate to military convenience, but they have not been ashamed to assert this damnable doctrine * * * as a principle of deliberate conduct. True, they talk of necessity, but in the same sense that the convenience of military advan-

are equal in right? They cease to be except perhaps in books. They have no reason for existence when a single nation dominates the world, and that a nation which recognizes no law except the law of self-interest and has no motto except that might makes right.

And what does the disappearance of international law from the earth mean? It means that no nation can ever again trust another; it means that truth and honor and good faith cease to exist so far as international relations are concerned.

From the hour of that victory treaties will become in very truth mere scraps of paper, of no use except to deceive the unwary and prepare pitfalls for the gullible. National honor will be no more. If one nation plays the game of diplomacy with loaded dice, others must do the same if they would live as independent nations.

This means world-wide militarism, world-wide spying and plotting, world-wide hatred and distrust. It means that every State must become a military camp and every people an organized army. It means that war becomes the chief business of mankind. It means that no small State can survive, especially if it be an agricultural State; only the State which possesses the necessary mineral wealth and manufacturing genius, so that it can furnish itself with armament and war material from its own resources, has any chance to live. It means that the mad race in armaments on sea and land will continue with greatly-increased speed. It means a world in which fear of one's neighbor reigns supreme and revenge becomes the engrossing thought of the nations. It means in all likelihood a succession of wars resulting finally in the triumph of a great military Prussianized empire of which all other States, including this our own republic, shall be dependencies or submissive slaves.

Facing this, the most tremendous challenge to human liberty in history, we have made our choice, the only choice possible to a nation of freemen, and we must not fail. We might have said, as said the rich man in scripture: "Soul, take thine ease, thou hast much goods laid up for many years, eat, drink and be merry," but, thank God! we chose

it will establish at Paducah, Ky., this company having a capitalization of \$100,000. The principal organizers are G. A. Nagle and R. W. McKinney, who have contracted with McCracken county (Kentucky) growers for the vegetables from 4750 acres of land, as follows: Tomatoes, 2000 acres; pumpkins, 1000 acres; sweet potatoes, 500 acres; cucumbers, 500 acres; cabbage, 500 acres; stringless beans, 250 acres.

The company has purchased suitable buildings and will build a two-story 160x60-foot addition, constructing sheds for unloading wagons and for crate storage, and provide railway trackage facilities for 18 cars. Its mechanical equipment will include the continuous-cooker system canning machinery for vegetables, hominy, pork and beans, kraut, tomato catsup and soups.

Cattle Raising in Florida to Be Fostered by Texas Ranchmen.

Kingsville, Tex., March 19—[Special.]—Caesar Kleeberg of Kingsville, a prominent ranchman, and other members of a committee of Texas cattle raisers that recently visited Florida for the purpose of making an investigation as to the utilization of wild lands in that State for ranching purposes, found that there are more than 15,000,000 acres of unfenced and undeveloped land there well adapted to the cattle industry.

The fact that the protracted drought in south and west Texas has caused serious losses to many ranchmen led to this investigation of the possibilities of opening up undeveloped parts of Florida to the industry and the moving of the herds from the drouthy portions of this State to the new grazing region.

The visit of Mr. Kleeberg, who was accompanied by W. M. Waddell and Marian Sampson of Fort Worth and Tom East of Corpus Christi, to Florida was regarded by financial and business interests of that State as of great importance. The committee has opened the way, it is claimed, to making the raw lands of Florida income producing.

*Sir Frederick Pollock, in Introduction to 5th ed. of Wheaton's International Law, by Phillipson.

No Slander.

[Waco (Tex.) Times-Herald.]

Yea, verily, Mr. Wilson has plenty of vision—the long look ahead—and the people of the Old World, groping toward the light, need his guiding hand, and this is why he has need of a war council, a body competent to lift from his shoulders the infinite lot of details which he is now carrying and which are calculated not only to impair the long look ahead, but to utterly crush him physically. We rather think that Mr. Roosevelt and the others approached this matter in the very worst way. They should have gone to the President direct and shown their sympathetic interest. Instead, they have rushed into print and spoken from platform, and Mr. Wilson being Scotch—well, no Scotchman ever yet was driven.—Waco Times-Herald.

The good old Democratic paper, the Times-Herald, states the case fairly, except in the last sentence in which it suggests that hard-headedness of Scotch origin is keeping Mr. Wilson from doing what the Times-Herald thinks he should do. That in plain English would mean that Mr. Wilson would not do right merely because of the way it was presented to him. That surely is a slander.—MANUFACTURERS RECORD, Baltimore, Md.

Not slander; mighty few men there are who can be driven, and particularly is it true of the Scotchman that you can't drive him. We have never been able to make out how the English and the Scots finally adjusted their differences, unless it be on the principle stated by one historian that "Scotland is, to all intents and purposes, almost more English in many respects than even England itself." Maybe those Scots flatter themselves that they and not the English are the controlling force in the British Union. It is a safe wager that not one of them was driven in the slightest degree to a manifestation of loyalty. Mr. Wilson is Scotch stock; he can't be driven.

But Mr. Wilson can and does change his mind, sta-

body, but, as we have remarked before, they went at it awkwardly—tried to drive the President, and so failed of their purpose, for, as said, no Scotchman ever yet was driven, and that's no slander, esteemed Baltimore brother.

To Assist Manufacturers in Getting War Contracts.

A special questionnaire has been issued relative to war work by the Merchants and Manufacturers' Association of Baltimore. It is stated that the purpose is twofold; first, to make possible the organization of Baltimore manufacturers under the "group system," whereby industries of like nature can operate under the direction of war service committees in securing Government contracts, and second, to make it possible for those factories which run the risk of losing business, by virtue of the "priority orders," to alter their normal operations somewhat so that they can enter the field of war activities and thereby secure contracts which will keep them running. It also means additional opportunities to get certain straight "commercial contracts" which would otherwise not be obtainable. Replies to the questionnaire are to be sent to A. S. Goldsborough, director of the Civic and Industrial Bureau of the Association, 111 E. German street, Baltimore. The same bureau has also issued a small book presenting valuable information and suggestions to manufacturers concerning how they can seek war contracts with those Government departments that are interested in buying supplies of all kinds.

Louisiana Truck Supplying Northern Markets.

New Orleans, La., March 15—[Special.]—A 50 per cent. increase in the garden truck crop of Louisiana and a potato crop double that of last year is the outlook for Louisiana in 1918. The production of potatoes in the

RICE AND SUGAR CROPS TO EXPAND.
Great Agricultural Activity in Several Louisiana Parishes Presage Big Output.

New Orleans, La., March 18—[Special.]—A large increase in Louisiana rice acreage and a reasonably substantial increase in sugar-cane acreage is assured this year. Crop, soil and weather conditions are unusually satisfactory. In the country along the Mississippi River north of New Orleans at least three large plantations, idle for many years, are now being cultivated in rice, and on the river south of that city farmers are preparing to plant the largest rice crop in 25 years. Every available field is being put into rice, although for many years the uncultivated area was enormous. Early rice will be sowed with choicest seed next month.

The Farmers' Canal Co. at Lake Charles, La., is completing a system of drainage canals, where 10,000 acres of virgin soil have been put under cultivation for rice, and this year's crop on these new lands will add about \$1,000,000 to the crop values in that parish. The cost of the drainage system was only \$40,000.

As to sugar, there are in Vermilion and Lafayette parishes six of the largest "centrals," all of these factories buying their cane from small farmers. The Erath Sugar Co., one of these plants, has gone in for cane planting itself and has put 1200 acres of hitherto dead lands into cane culture. The Oaklawn Sugar Co. of Franklin has also put 1200 acres more of its own large land holdings into cane. Bob Acres, the historic Louisiana home of the late Joseph Jefferson, was bought some time ago by a Louisville capitalist named Jones, and it is now undergoing a complete rehabilitation, its extensive lands being plowed and prepared for the largest cane planting in its history. Delcambre, an old sugar-house, dormant for many years until a year or two ago, will make about 3,000,000 pounds of sugar in 1918.

Within the last week five of the most important

Buy Liberty for Yourself and Your Country by Buying Liberty Bonds

lingly so at times. He broke with his Secretary of War, Mr. Garrison, on conscription, and in a little while was where the late Secretary had stood. He insisted that the matter of votes for women should be settled by the States, stuck to it through the Presidential campaign, and all of a sudden changed his mind. We mention these two instances not by way of disparagement; we like to see a man with the courage to change his mind when convinced that he is wrong. We assume that Mr. Wilson, whenever he changes his mind, is fully convinced that he was wrong and is now right. It was Mr. Emerson who said that consistency is the hobgoblin of little minds. Mr. Wilson is not afraid to change his mind and to make the change known, as shown throughout his career. The risk a man runs right here is that he may be charged with being an opportunist; therefore, he owes it to himself to change his mind with great deliberation, for if the change turns out to be wrong he in some measure blasts his reputation. We shall hope that some day Mr. Wilson will give us his reason or reasons for the change in his attitude toward the method of giving the ballot to woman. The Fort Worth Record has intimated that the Democrats were under the necessity of changing their attitude to save themselves on the day of election. If that be the case, how long would it take us to go from a representative democracy to a socialistic democracy or even to an autocracy? Must a political party shift its position to catch every passing breeze?

Mr. Wilson is carrying a great load—a load that would crush an ordinary man. He is doing wonderfully well. Our own judgment is that he is undertaking more than is necessary—that is to say, he is carrying burdens which might well be shifted to other shoulders. We rather think he needs a body with whom he could daily consult—a body independent of his Cabinet, the members of which have many perplexing duties to look after. A War Cabinet, consisting of something like 15 men, drawn from all parties and all professions, would be, it seems to us a decided help to the President in formulating plans and executing details. This body would not be superior to the President; it would be advisory. Mr. Roosevelt and others have urged the creation of such a

New Orleans district of Louisiana amounted to approximately 1000 cars last year, valued at between \$1,000,000 and \$2,000,000. It is likely to exceed 2000 cars this year, with an estimated value around \$3,000,000. The largest potato-producing section in Louisiana is on Bayou Lafourche near this city, and this same section also produces very heavy onion crops. Lands now devoted to potatoes and onions and other truck were once given over exclusively to the raising of sugar-cane. Many sugar planters are devoting large tracts of their lands to truck and Irish potatoes this year. The St. Clair sugar plantation of I. S. Lothrop on the lower coast, near this city, was sold this week to a New Orleans Italian named John Liuzza for \$33,500, and will be cultivated entirely in truck by the new owner. This place has been for the most part neglected for many years.

The prosperity of the truck farmers is to be seen in new farm residences and farm buildings of the most modern type all over South Louisiana.

The shipping season for truck is in full blast. Thousands of carloads of Southern vegetables are moving North now.

Believes Immediate and Insistent Action Should Be Taken for National Prohibition.

LESLIE M. JOHNSTON, Second Vice-President A. M. Byers Company, Manufacturers of Wrought Iron Pipe, Oil Well Tubing and Casing, Pittsburgh, Pa.

Your favor of the 2d inst., addressed to Mr. E. M. Byers, president, has been referred to the writer for reply.

It is our view, backed up by the evidence of our own operations, that national prohibition at the present time as a war measure would increase the efficiency of labor and permit enlarged production of coal, iron, steel, ships and other things essential to winning the war. We believe that booze is a cancer, eating out the heart of efficiency, either in war or peace times; but being at war, we believe the necessity for eradicating this sickness to be so great that immediate and insistent action should be taken by our Government.

Louisiana sugar factory units have announced their preparations to equip for making plantation granulated sugar. Their combined output is around 40,000,000 pounds, with a correspondingly large production of molasses and other by-products. Every week other important white sugar conversions are noted.

Evan Hall and Belle Alliance, two large sugar estates, have been bought by the A. W. Norman Planting & Manufacturing Co., a new corporation, headed by A. W. Norman. Extensive improvements are planned. An Iberville parish sugar-house was bought by cane growers south of Baton Rouge for re-erection at St. Gabriel. It will be owned and operated on the Centerville co-operative plan, that is, by the cane growers, who will gather the planting and the manufacturing profits.

Convalescent Camp at Corpus Christi for Texas Troops.

Corpus Christi, Tex., March 19—[Special.]—Members of the medical staff of the army convalescent camp are arriving here daily, and Major Fred H. Clark, the commanding officer, is expecting the entire staff to be assembled here within another few days. A number of nurses will also reach here during the present week, and possibly as early as next week the camp will be ready to receive convalescents.

The authorities have announced that convalescents from Texas camps and Texas troops wounded or becoming ill in France will be nursed back to health at the Corpus Christi convalescent base hospital.

The Corpus Christi Beach Hotel and surrounding property, including a large pier in Corpus Christi Bay, has been leased for such purposes, and in addition the Government has leased the large tract of land which for many years was used for encampment grounds for the Texas State Epworth League. This ground will be used for drill purposes. The convalescent camp will be sufficient in size at the start to care for from 1500 to 2000. It was established by order of Secretary of War Baker, upon the recommendation of Surgeon-General Gorgas, and is the first of its kind to be established in the United States.

The Iron, Steel and Metal Trades

Iron Production and Deliveries in Birmingham District Not Yet Up to Desired Volume.

Birmingham, Ala., March 18—[Special.]—Withdrawal from the market, careful selling, favoring customers as much as possible, and then only in small lots, tells the story of the pig-iron market conditions in the South. There is but little iron offered for the second quarter of the year, and not a great deal of the probable make for the last half available as might be desired. Of course, Government schedules obtain strictly. There is a considerable amount of interest manifested in what the Government is likely to do as to revision of schedule, though there is confidence manifested that the revision will not be downward when it is announced. While every attention is being given to production and delivery, realization of desires is not noted. Coke supplies, while steadily improving, also ore and other raw material, are not so plentiful as to warrant a statement that nothing interferes with the iron make. As to deliveries, there is a good showing so far as the intra-district and parts of the South are concerned, but to reach larger territories there is still much difficulty.

Accumulated stocks are being reduced some. Furnace companies are behind in deliveries, as much as 35,000 tons, and even more. Home consumption is curtailed still, soil-pipe plants are down and cast-iron pipe plants not doing the normal amount of melting, one of the larger plants producing pipe at Bessemer being down entirely.

Inquiries are numerous. Foundries are anxious to get their iron orders accepted promptly, and some intimation is given that there is objection to the changing of foundry iron making to basic iron in order that steel-making concerns may be accommodated. Only one or two companies in the South are in the market except in small lots.

Industrial circles in the South had discounted action of the stockholders and the directors of the Sloss-Sheffield Steel & Iron Co. at meetings held the past week, and continued activity is looked for with the company. Waddill Catchings, who succeeds J. C. Maben, Sr., as chairman of the executive committee, has had much experience in handling affairs of Southern companies. In addition to being president for several months of the Sloss-Sheffield Steel & Iron Co., he was with the Central Foundry Co., with operations in Alabama. L. Sevier, who was general agent of the Southern Railway in Birmingham, representing the executives, was elected director and vice-president, transportation problems with the company to be his principal work.

Announcement has been made of an increase in capitalization of the American Steel & Wire Co. of Fairfield, subsidiary of the United States Steel Corporation, from \$100,000 to \$2,000,000.

While considerable has been printed locally about the visit of Japanese representatives of iron and steel manufacturing companies to the Birmingham district, there is no idea of any development or heavy investment here by these interests. The fact that all exports must go through Government regulation excludes any possibility of any deals being consummated in this district for basic or other irons.

Scrap iron and steel dealers in the South are anxious to see what the Government is going to do about the revision of the pig-iron quotations. There is not any too much accumulation, and dealers believe that better conditions are in sight. Quotations show little change, but Southern dealers are not yet receiving the Government prices on any of the commodities.

Pig-iron and old material, scrap iron and steel quotations in the South are as follows:

PIG-IRON.

No. 2 foundry.....\$33.00 to \$33.50 f. o. b. furnaces

(Differentials same as before Government revision went into effect; new revision expected Wednesday, March 20; charcoal iron, \$43; sales made in this section with understanding if revision is lower right of cancellation is held by producer.)

OLD MATERIAL.

Old steel axles.....	\$32.00 to \$33.00
Old steel rails.....	28.00 to 30.00
Heavy melting steel.....	26.00 to 26.00
No. 1 railroad wrought.....	28.00 to 30.00
No. 1 cast.....	25.00 to 27.00
Stove plate.....	19.00 to 22.00
Old car wheels.....	25.00 to 30.00
Tramcar wheels.....	21.00 to 25.00
Machine-shop turnings.....	17.50 to 19.00
Cast-iron borings.....	13.00 to 15.00

Improved Conditions in Steel Market.

New York, March 18—[Special.]—Shipments of finished steel increased somewhat during the past week. The supply of cars for shipping finished steel has increased but slowly of late, service to the steel industry apparently having been handicapped by the necessity of moving such large quantities of foodstuffs to seaboard. A favorable indication was the announcement at the close of the week that a number of box cars had been restored to the steel plants, which are specially required for the shipments of sheets and steel plates.

According to reliable sources, it is estimated that in July, and later, the war steel requirements of the nation will be fully 1,500,000 gross tons per month. This estimate involves increased requirements in steel for shells, for shipbuilding and the addition of steel for cars and locomotives purchased under Government auspices, while it also represents the elimination of many items recently prominent. A rough estimate of requirements for July and later months is 400,000 gross tons of shell steel a month, 400,000 tons for cars and locomotives, 500,000 tons for shipbuilding and 200,000 tons for miscellaneous, making 1,500,000 tons a month altogether. Assuming this tonnage to be absorbed, the remaining 50 per cent of capacity would be distributed among exports and domestic peace consumption.

There was a broader demand last week for merchant bars, and particularly steel bars. Jobbers are showing a disposition to place orders for stock against the fall trade.

Although steel mills have a large tonnage of merchant bar business on their books, the deliveries are somewhat extended, and there have been evidences in the past week of producers being quite willing to accept some additional business for early delivery. The change came so rapidly that in some quarters predictions are made that within the next month, if not earlier, mills will be still more ready to book early deliveries.

Iron mills report that they still have a large tonnage of orders on their books at 4 cents or higher, even though the bi-monthly wage settlements have thus far shown more than 3.10 cents as the average invoice price in a 60-day period.

Some improvement is noted in shipment of wire products on contracts to commercial consumers, but the bulk of the distribution is on account of war orders.

The demand for standard steel pipe was very heavy last week. Distributors requested mills for much larger shipments, as they require increased stocks to carry on the spring distribution. There was not much activity in the open market, however, as jobbers are simply placing additional tonnages from time to time with their sources of supply. The demand for oil country goods continued insistent, there being inquiries for all descriptions of tubular goods used in the oil trade. With the higher price of oil, every effort is being made to increase production.

The National Tube Co. issued three new price-lists for goods sold in California, including drill pipe, drive pipe, casing, etc. The new delivered prices are occasioned by the revision in freight rates, the general basis at Pittsburgh being unaltered.

Shipments of pig-iron last week were made with some what more facility than heretofore, and furnaces were better supplied with cars than two or three weeks ago, while the embargoes are a trifle less extensive. There was considerable pressure exerted by consumers for deliveries. Merchant furnace operations were much improved, averaging for all merchant furnaces in the Central West about 80 per cent. of capacity. Very little iron is now accumulating at furnaces. Carload orders continued to be plentiful, but were entered only as a matter of accommodation to help out a regular customer. Few sales of foundry iron of importance were made by either Buffalo or Pennsylvania furnaces for Eastern shipment, but deliveries on contracts were improved.

Improvement in Transportation, But Material Supply Not Keeping Up With Requirements.

The Matthew Addy Company, in commenting on the present iron and steel situation, says:

"As illustrating what has happened to the railroads, we had iron shipped from Alabama in early December

which was delivered in March. We know of several cars which were delivered in December on a siding in a Southern furnace town and which were not switched to the plant to which they were consigned until last week. That meant that the cars were locked up, idle, out of use. Those cars in ordinary times would have made half a dozen round trips and could normally have done from six to twelve times the amount of work they really did. This is why empties have been so scarce, and this is why industry has been so hampered by the railroads. The specific cases we have cited can be multiplied a thousand times. Now that we are having reasonable weather, the railroad deadlock is being slowly unlocked. The railroads are again being opened more freely to traffic. The trouble is not over, by any means, but the situation has so improved that the future is distinctly more promising.

"There is continuous demand for iron. Basic and Bessemer are wanted in much larger quantities than are available. The development of steel-making plants has been at a much more rapid rate than the increase of the facilities for producing steel-making irons. In fact, the consuming end of the iron trade has grown faster than the producing end. Even if the difficulties of distribution and transportation were out of the way, this fact remains.

"The problem of raw materials for the furnaces will give trouble all this year. Coal and coke are lagging behind the procession. Such enormous demands are being made upon the coal mines that, do the best we can, there will be shortages.

"The present prices for iron were established subject to revision April 1, and the whole trade is much exercised over the question as to whether prices are to be changed or not. As far as ironmasters are concerned, they wish no change. They have become accustomed to operating under the present schedules, and believe that any change would simply upset business. Every energy of the trade is primarily being directed to furthering the war aims of the Government."

Metal Markets Become Quiet Again.

New York, March 18—[Special.]—Inquiry for all metals was very light last week, and little interest was shown by consumers of either copper, lead or spelter. The only news of interest was the announcement from London on Thursday that licenses for tin exports from the United Kingdom had been suspended for one month. The commandeering of Dutch vessels by the United States and England for transport service was also a very serious development in the tin situation.

Copper for the Government is being released promptly, but some of the smaller consumers are having trouble in obtaining supplies for domestic purposes. There was no pressing demand as it was, but producers and dealers appeared disinclined last week to quote prices for prompt or March shipment, and some would only quote April-May shipment at sellers' option. The retail demand for copper in the New York market was very slow, but this may be accounted for by the establishment of licensed dealers in the different cities of the country. In the New York market the Government allowance of 5 per cent. is being cut.

Lead in 100-ton lots for March shipment from the West were sold by dealers in the New York market last week at 7 cents St. Louis, and offered April and May shipments on the same basis. It is not known that any producer has sold at as low as this figure, and many of them stated that they were holding their quotations at the level of the American Smelting & Refining Co.'s price of 7.25 cents. The market was distinctly easy in undertone, and while there was undoubtedly a change in the situation, it was made more pronounced by pressure to sell to unwilling buyers.

Spelter was pressed on the market from several directions last week, and there were voluntary offers to sell at below 7½ cents St. Louis for March and April shipments. This development is clearly an indication of a further reduction in output, for it has been proven conclusively that the consumption of spelter cannot be increased by lowering the prices. There are not the mill facilities or the steel with which to build up the trade

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in galvanized products, and there is not the copper with which to increase the manufacture of brass goods, even if there were a demand for them.

On Thursday of last week announcement was made at London that tin export licenses from the United Kingdom would be held up for the period of one month. This applies not only to the United States, but also to all other countries. It is understood in the trade, however, that licenses that have been previously obtained for shipment during March or later will be allowed to come forward. Of course, all Straits shipments to the United States from England have been held up for some time past, but up to the present English Lamb & Flagg and refined tin have been allowed to come forward freely. It will create a very serious situation if the market is to be deprived of these two grades of tin.

Another serious development was the commandeering of Dutch vessels by the United States and English Governments for army transport service. It is believed that the arrangement includes a number of vessels in Far Eastern ports. Should the Dutch Government hold up ships at Batavia in retaliation a most serious condition will be created, as Banca tin has been coming forward in large quantities of late, and in part helped to offset the scarcity of Straits.

MINING

Details in regard to road and street undertakings and bond issues, briefly mentioned below, are given under the proper headings in our "Construction Department" and "New Securities," published elsewhere in this issue.

To Develop Oklahoma Salt Springs.

Salt springs will be developed by the Blaine County Salt Co. of Ferguson, Okla., recently incorporated with \$200,000 capital and organized with the following officers: J. E. Cronkhite, president; J. B. Scott, vice-president; S. R. Gilchrist, secretary, all of Hitchcock, Okla. The secretary is ready to receive prices on electrical equipment, boilers, pans, piping, lumber and seven-inch vitrified tile pipe for a salt plant. Referring to this enterprise, Secretary Gilchrist writes to the MANUFACTURERS RECORD:

"Blaine County Salt Co. owns and controls land upon which there are numerous salt springs producing 150 gallons of salt brine per second. This brine carries a chemical test of near 97 per cent. pure and almost three pounds of salt to the gallon of brine. We intend piping this water four miles to the railroad and there erect an evaporating plant with a capacity of 400 barrels per day. We have a natural fall of 52 feet in the four miles, which will enable us to supply our plant with brine direct from the springs to the plant by gravity, no pumps being required."

For 1000 Tons of Coal Daily.

A daily output of 1000 tons of coal is the plan of the Elkhorn By-products Co., Huntington, W. Va., which will develop 462 acres of coal land in Dickinson county, Virginia. This corporation was chartered last week with a capitalization of \$300,000, and its officers include: President, J. R. Slayton; vice-president and construction engineer, H. T. Lambert; both of Huntington. Engineer Lambert is prepared to receive proposals for furnishing mining machinery, mine cars and electric power equipment.

Southern Pyrites Corporation.

Pyrites ore-land developments are proposed by the Southern Pyrites Corporation, which has been incorporated with a capitalization of \$800,000. W. Y. Westervelt, J. N. Bailey and R. L. Wensley, all of New York, are the incorporators.

Directors Elected.

At the annual meeting of the Gulf, Mobile & Northern Railroad Co., held last week at Mobile, Ala., directors were elected as follows: John W. Platten, Chas. B. Beckman, W. H. Cloverdale, Jos. S. Dale and C. H. Murphy of New York, W. F. Owen and J. C. Rich of Mobile, A. H. S. Post and T. Nelson Strother of Baltimore, I. B. Tigrett of Jackson, Tenn., and Frederick W. Scott of Richmond, Va.

RAILROADS

ELECTRIC OPERATION BIG SUCCESS.

Norfolk & Western Also Reports Other Steps for Economy in Getting Coal.

President N. D. Maher of the Norfolk & Western Railway, in his annual report for the year ended December 31, 1917, says that the company now operates a double-tracked line from Norfolk, Va., to Columbus, O., 706 miles, excepting two very short sections of single track, one being about a mile long and the other less than a mile.

The extension of the electrified line from Cooper, W. Va., three miles to a point one mile beyond Simmons is now in operation. The additional extensions from West Vivian to Farm, W. Va., 11 miles, and from Tug Fork Junction to Wilcoo, W. Va., 5 miles, are still under construction, but, owing to delays in getting materials, they will not be finished until late this year. Results from operation of the branch electric extensions to Pocahontas and to Simmons have fully equalled expectations both as to facility of movements and as to economy. The cost of freight movement in the electric zone during October, 1917, when conditions were normal, was 26 per cent. less than if steam-power alone had been used. The main line electric zone extends from Bluefield to Vivian, W. Va., 28 miles.

Influenced by the high price of coal for its locomotives, the company acquired leasehold interests in several mines to produce about one-sixth of its fuel supply. They are the Howard and the Vulcan operations in Mingo county, W. Va., and Pike county, Kentucky, respectively.

The two steamer warehouse piers of the road at Lamberts Point, Norfolk, were practically finished late in the year, but the Federal Government early applied for lease of them, together with adjoining land and tracks, which lease was concluded last summer. Each pier is 22 feet wide, and one of them is 1200 feet long and the other 800 feet long. The Government also leased land at Portlock Yard, near Norfolk, from the company and other owners, also to be used for export shipments.

The income statement shows total operating revenues for the year, \$65,910,242.04; increase as compared with 1916, \$6,460,260.43, or 10.87 per cent.; total operating expenses, \$41,161,503.34; increase, \$7,652,771.18, or 22.84 per cent.; net revenue from railway operations, \$24,748,738.70; decrease, \$1,192,510.75, or 4.60 per cent.; railway operating income after tax accruals and uncollectible railway revenue, \$19,651,816.14; decrease, \$3,807,450.31, or 16.23 per cent. Gross income was \$23,182,055.57, or 11.39 per cent. less than the previous year, and net income was \$18,946,137.04, or 13.09 per cent. less.

INCREASED COMMODITY RATES.

A 15 Per Cent. Raise Granted to Eastern Roads on Bulky Freight.

An increase of about 15 per cent. in commodity rates was granted on March 15 by the Interstate Commerce Commission to the railroads east of the Mississippi River and north of the Ohio and the Potomac rivers, this being supplemental to a similar advance in class rates granted last summer. The new rates will take effect as soon as the railroads can file new tariff sheets. The advance applies to coal, grain, brick, general food-stuffs, oil, stone, cement, lumber and other products which are shipped in large quantities.

These rates do not affect railroads west of the Mississippi River or those in the South, excepting on shipments either to or from points in the territory covered by the Interstate Commerce Commission's order. Neither will they, according to information from Washington, increase the net revenue of the railroads affected, for although the advance will add about \$58,000,000 to their revenues as estimated, the railroads, under the Federal administration, will be paid according to the previously announced plan of compensation, the amount named, as well as other earnings, being controlled by the board headed by Director-General McAdoo.

It is further stated that while the order of last summer was estimated to have increased the revenues of

the roads about 5 per cent., the present order will, it is similarly calculated, raise them from 7 to 10 per cent. more.

New advanced rates have also been granted in several specific cases related to the commodity rates, thus: Anthracite coal, 15 cents per ton maximum; cement, 1 cent per 100 pounds; lumber and other forest products, 1 cent per 100 pounds; these rates being regardless of distance. Rates on brick, clay, etc., are increased 15 per cent. in some instances from plants near Canton, O., while in others they are calculated on differentials from the Canton basis.

\$100,000,000 Worth of Cars and Engines.

Bids will soon be invited by the Railroad Administration at Washington for new equipment of a total estimated value of \$100,000,000. This will include about 2700 locomotives and 45,000 freight cars, most of the latter being cars of from 50 to 70 tons capacity. It is expected that the orders for construction will be awarded at different times and in lots, each composing only a part of the aggregate. For instance, the first engine order will probably be for 900, and the same method of procedure will be followed in the matter of freight-car contracts.

Norfolk Southern's New Board.

The board of directors elected at the recent annual meeting of the Norfolk Southern Railroad is composed as follows: Henry W. Bull, Lewis L. Clarke, Joseph W. Harriman, Alvin W. Kreech, Adrian H. Larkin, Richard H. Swartwout, S. L. Schoonmaker and John T. Terry of New York; Philip Allen, Harold J. Gross, Benj. A. Jackson, Samuel M. Nicholson and Marsden J. Perry of Providence, R. I.; E. C. Duncan of Raleigh, N. C.; C. E. Foy of Newbern, N. C.; Frank A. Sayles of Saylesville, R. I., and J. H. Young of Norfolk, Va.

Gardening Along a Railroad.

W. R. Scott, vice-president and general manager of the Southern Pacific Company desiring to assist the Food Administration, has asked all superintendents to encourage the planting of vegetables on company property wherever practicable. Agents, section foremen and employees of the maintenance of way department are being instructed to convert to vegetable gardens all suitable ground around their places of employment. Company land is also being leased to others for truck gardening and farming. Last year's gardening by hundreds of employes was a great success.

Two Ladies on This Railroad Board.

Lloyd E. Jones of Valdosta, Ga., has been elected general manager of the Valdosta, Moultrie & Western Railway, according to a report from there, succeeding W. M. Legg of Albany, Ga., who recently resigned. Two ladies are on the board of directors, viz., Mrs. Lilly Roberts and Mrs. Lottie Green. The other directors are C. L. Jones, president; O. D. Dalton, vice-president; S. W. Jones, J. T. Mathis, D. U. Jones, J. J. Newman and L. E. Jones.

Selma Street Railway to Improve.

The recent sale of the street railway at Selma, Ala., resulted in its purchase by S. G. Adams for \$50,000, the amount of the first mortgage bonds, which are owned by Mrs. F. M. Abbott and Mrs. C. L. Waters. The purchaser then transferred it to the Selma Traction Co., a new organization, which will now operate the property, the president being J. D. Woodard of Warren, Pa. Improvements will be made, including an extension.

\$96,000,000 for Pennsylvania Improvements.

At the annual meeting of stockholders of the Pennsylvania Railroad last week the recommendation that \$75,000,000 more of bonds be issued was approved without any dissent. This gives the company a total of \$96,000,000 of bonds which may be issued, as there were \$21,000,000 remaining unissued out of a previous authorization. The proceeds of these securities will be used for enlargement of terminals and other improvements.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

For \$250,000 Cloth Mill Additions.

An investment of \$250,000 has been decided upon by the Southern Manufacturing Co. of Athens, Ga., to double its plant for the manufacture of cotton cloth. It will expend \$175,000 for the new machinery and \$75,000 for the new buildings, John Hill of Atlanta being the architect and engineer in charge. The additional buildings will cover an area of 1½ acres and contain 60,000 square feet of floor space, construction to be under the superintendence of W. T. Broxton of Athens and all building materials having been purchased.

The new machinery will include 1000 spindles (90 spinning frames), 50 cutting cards, 150 looms, etc., increasing the Southern plant to a weekly capacity of 200,000 pounds of cloth, with 800 operatives employed. Building specifications provide for the following structures: 180x100-foot office, warehouse and first-aid department; 180x125-foot addition to No. 2 mill; extension to No. 1 mill, increasing this to 200x50 feet and adding one story; 200x25-foot weave shed and addition; enlarge slasher-rooms.

Rebuild \$500,000 Army Cloth Mill.

Details have been determined for rebuilding the army cloth mill of the Oella (Md.) Mills, recently destroyed by fire. About \$500,000 will be invested for the new buildings and machinery, including 3900 spindles with 60 looms for a daily capacity of 3000 yards of woolen cloth, all the new equipment having been ordered. Chas. J. Main of Boston, the architect and engineer recently engaged, has prepared plans and specifications for buildings as follows: Four-story 156x92½-foot main mill; five-story 103x60-foot dyehouse and storage buildings; 47x29-foot boiler-house. The 103x60-foot building will be of reinforced concrete and the other structures will be of a slow-burning brick, steel and wood construction, all costing \$260,000. The mill machinery will cost \$225,000 and a 380 horse-power electric plant will cost \$15,000. This mill will employ 190 operatives.

For the Fieldale Village Developments.

E. S. Draper, landscape architect, Charlotte, N. C., has been retained by the Carolina Cotton & Woolen Mills Co., Spry, N. C., to plan its mill village development at Fieldale, Va. The company is expending nearly \$2,000,000 for the first unit of its Fieldale plant and village, the initial mill unit providing for 75,000 spindles with accompanying looms. Its ultimate plans call for four units, mill equipments to include 75,000 spindles with accompanying looms. Its ultimate plans for Fieldale call for mills with 300,000 spindles and accompanying looms, in accordance with details announced last year.

Big Hosiery Mill for Wilmington.

With plans for installing an equipment of machinery to have a daily capacity of 1000 dozen pairs of hose, the People's Hosiery Mill has been organized at Wilmington, N. C. This company is capitalized at \$200,000, has secured a suitable building and has purchased the machinery for its plant. It will build an addition to be equipped for dyeing hosiery. Officers have been elected as follows: E. F. O. Banck, president; J. Houghton James, vice-president; Kenneth O. Burgwyn, secretary-treasurer.

To Spin Hosiery Yarns.

A \$60,000 equipment of machinery will be installed by the White-Parks Mills Co., Concord, N. C., to spin Nos. 16 to 32 hosiery yarns. It will include 2000 spindles with accompanying pickers, cards, etc., the spinning machinery having been purchased from the Saco-

Lowell Shops of Lowell, Mass. The White-Parks Mills Co. has been chartered with \$200,000 capital by E. F. White, J. G. Parks and associates, all of Concord.

Will Manufacture Hosiery Yarns.

The Alexander Manufacturing Co., Forest City, N. C., heretofore mentioned as organized to establish a mill, has elected these officers: J. F. Alexander, president; L. V. Lee, vice-president; J. R. Moore, secretary-treasurer. This company will build a 230x81-foot brick construction mill and in it install machinery to include 10,000 spindles with electric-power drive for the manufacture of hosiery yarns. Its capitalization is \$200,000.

Kincaid Knitting Mills.

About \$15,000 will be the cost of a 120x60-foot brick-concrete building to be erected for the Kincaid Knitting Mills, recently organized at Griffin, Ga. This structure will be equipped with 50 knitting machines and electric power drive for a 24-hour capacity of 400 dozen pairs of hose. The machinery has been ordered and will cost \$25,000. W. H. Sears of Chattanooga, Tenn., is the architect-engineer for the plant.

Mauney-Steel Yarn Co.

The Mauney-Steel Yarn Co., Cherryville, N. C., has been organized with an authorized capital of \$500,000 and the following officers: D. H. Mauney, president, Long Shoals, N. C.; Phil S. Steel, vice-president, Philadelphia; John J. George, vice-president; D. A. Rudisill, secretary, both of Cherryville; J. S. P. Carpenter, treasurer, Boston. This corporation has been formed by the management of fifteen cotton-yarn-mill companies located in North Carolina.

Winner Hosiery Mill.

An \$8000 equipment of machinery for a 24-hour capacity of 300 dozen pairs of hose will be installed by the Winner Hosiery Mill Co., Boiling Springs, N. C. This company has organized with \$10,000 capital and these officers: J. W. Wood, president; Ernest White, secretary; A. B. Holland, treasurer.

To Add 6000 Spindles.

An additional mill to be equipped with 6000 spindles and accompanying machinery will be built by the Linn Mills Co. of Landis, N. C. This company has ordered the necessary equipment and increased its capital from \$100,000 to \$250,000 for the new plant.

Textile Notes.

Clyde Armstrong and D. M. Jones, Gastonia, N. C., plan to build a mill for the production of knit hosiery.

F. Andresen, Pass Christian, Miss., contemplates the establishment of a mill for knitting hosiery.

Additions will be built by the Durham (N. C.) Hosiery Mills, and this company has purchased a \$60,000 site for the new plants.

New machinery has been purchased for installation to double the capacity of the Bowling-Emory Knitting Co., manufacturing hosiery at Durham, N. C.

General cotton mill village improvements for the Spencer Mills, Spindale, N. C., will be planned by E. S. Draper of Charlotte, landscape architect.

The Charwick-Hoskins Company, Charlotte, N. C., will build an addition to its mill at Pineville, N. C. Its new machinery will include 10 cards, 2 drawings and 1 picker.

The Chatham Manufacturing Co., manufacturer of woolen blankets, Winston-Salem, N. C., has amended charter to obtain privilege of increasing capital from \$350,000 to \$2,000,000.

A 100x75-foot additional mill will be built by the Norwood (N. C.) Manufacturing Co. and equipped with machinery to eliminate night operation. All contracts have been awarded.

MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

Cement Gun in Modern Construction.

Since the "Cement Gun," a scientifically developed apparatus for placing cement and concrete by compressed air, first came into practical use, about 1910 and 1911, it has steadily expanded in the uses to which it can be put for all kinds of construction, repair and protective work that its possibilities today seem only limited by the ingenuity of those using this equipment.

A recent piece of interesting construction work with the "Cement Gun" was in the construction of a number of buildings for the Petroleum Refining Co.'s new plant at Houston, Tex. An illustration is given of three



LINING IRRIGATION DITCH WITH CEMENT GUN.

wooden buildings of which the roof and sides were covered with 1½-inch "Gunite," which not only thoroughly protected the woodwork and added to its strength and permanency, but also rendered the structures fireproof.

Another late use of special interest at this time has been for the building of all kinds of structures in connection with the country's war work where quick and lasting construction is desired. Prominent among such work is that of building homes for workmen, and an illustration shows a type of four-room cottages built with the "Cement Gun" at Cornwells, Pa., for the Traylor Shipbuilding Co. These homes, as will be seen, are quite neat in exterior appearance, and also have the advantage of being sanitary and of a fireproof character.

Another illustration shows a large heavy steel frame warehouse which has "Gunite" walls two inches thick. This illustration shows several interesting features and



FOUR-ROOM "GUNITE" COTTAGES AT SHIPBUILDING PLANT.

stages of "Cement Gun" construction. The walls with the wire mesh attached can be noted, also a section of the wall showing the panels behind the mesh, and a portion of the walls being completed by "Cement Gun" application.

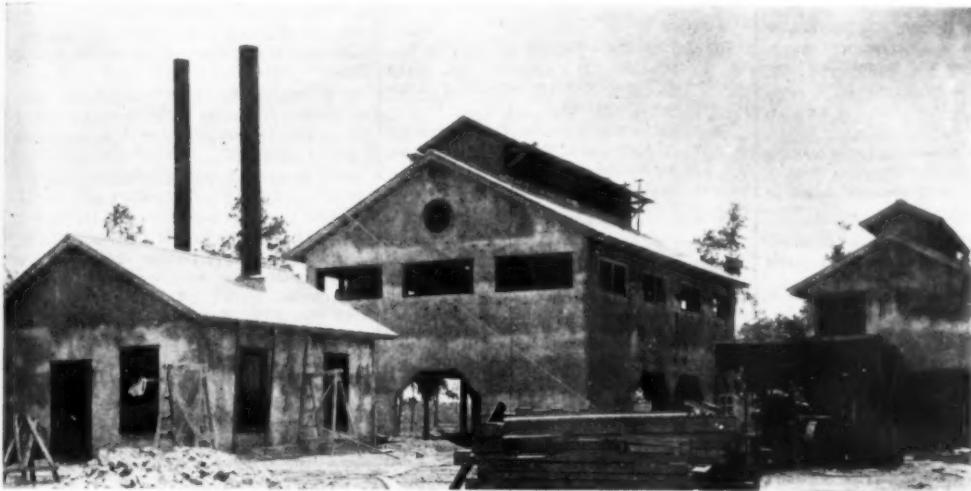
In all classes of railroad structures the "Cement Gun" has found wide adaptability, and a view is given of some

steel work at the Grand Central Depot in New York, where about 5,000,000 square feet of steel work was covered with the use of the "Cement Gun," and this is characteristic of the use of the "Cement Gun" by railroads in all parts of the country for coating steel structures and bridges of all kinds. They have also used this method for lining tunnels and protecting the walls of cuts from water seepage, and in all of this work it is claimed the results have proven of value in protecting the steel work and adding to its life and also remedying many troublesome defects.

For lining canals, irrigation ditches and strengthening levees, the "Cement Gun" has also been successfully employed. A view is given of an irrigation ditch showing wire mesh reinforcement in place and the "Gunite" being applied.

These several illustrations point to a number of instances that indicate the possibilities of "Cement Gun" work, but there are many other classes of construction in which it has also been used with success. Especially

these references cover some of the uses to which the "Cement Gun" has been applied successfully, and the range of its work, as previously stated, is limited only by the ingenuity of engineers employing it. This is shown by various references. The American Zinc Co. at Mascot, Tenn., had badly leaking fissures in its mine, which threatened to flood the mine. With the "Cement Gun" these fissures were sealed and the trouble averted. The Solvay Process Co. was having much trouble with its acid tanks, and this was remedied with the use of the "Cement Gun." The oil and asphalt tanks of the Atlanta Refining Co. were protected from going to pieces by the use of the "Cement Gun." The Commonwealth Edison Company of Chicago found it necessary to replace its steel coal hoppers every two years, but since using "Gunite" no steel repairs have been made in over two years. The Dewey Cement Gun Co. of Chicago, a contracting firm, has built large water storage tanks without the use of forms, and these have shown no leakage. The Cement Gun Construction Co.,



PETROLEUM REFINING CO.'S BUILDING, COVERED WITH "GUNITE."

is this true for use in mines where the "Cement Gun" has been used for coated roofs and sides of entries, and shafts, giving a protection against injurious effects of moistures and gases. Mine timbers have also been protected against fire and decay by a coating of "Gunite."

One of the new uses for the "Cement Gun" has been in shipbuilding work for lining the hulls of ships, and it is now being used for the direct construction of ships. It is also available for repairing concrete roads and highway structures, and for this purpose "Cement Gun" equipment mounted on automobile trucks are used for making repairs at any place on the roads. This automobile equipment has also been found adaptable for many other types of work where it is necessary to quickly remove the equipment from one place to another, especially for small jobs requiring quick, permanent construction or repair.

also of Chicago, another contracting firm, which constructed the work referred to at the Petroleum Refining Co. at Houston, Tex., has also lined a number of sulphuric acid tanks with "Gunite" with success.

The Cement Gun Co. of Allentown, Pa., manufactures and controls the "Cement Gun" equipment. A number of reliable contracting firms in various parts of the country have arrangements with the parent company for undertaking "Cement Gun" work of every character.

The White Cotton Co., Graham, N. C., has organized with \$5000 capital and these officers: W. E. White, president; S. S. Holt, secretary-treasurer. A building has been rented and will be equipped with 50 knitting machines driven by electric power.

Good Roads and Streets

SOUTHERN HIGHWAY ACTIVITIES.

Bonds to Be Voted.

Crowley, La.—Acadia parish will vote on issuing \$350,000 bonds for road construction.

Tyler, Tex.—Smith county will vote on issuing \$10,000 bonds for road construction.

Contracts Awarded.

Bradenton, Fla.—Manatee county awarded contract for 17,000 square yards of penetration macadam surface; \$12,000 available.

Fort Worth, Tex.—Tarrant county awarded contract for 2½ miles of boulevard paving.

Kingwood, W. Va.—Preston county awarded \$410,000 contracts for asphalt and concrete road construction.

St. Louis, Mo.—City awarded \$193,071 contracts for street paving.

Contracts to Be Awarded.

Bradenton, Fla.—Manatee county invites bids until April 8 for constructing 33 miles of hard-surfaced roads, with the necessary bridges.

Chatham, Va.—Pittsylvania county receives bids until April 1 for constructing 9 miles of road.

Concord, N. C.—Cabarrus county receives bids until April 3 for 14,000 square yards of pavement construction, either bituminous or other permanent material.

Drumright, Okla.—City receives bids until April 1 for 60,000 square yards of brick paving.

Fort Worth, Tex.—War Department will expend \$20,000 for improving roads to Camp Bowie.

Lake Alfred, Fla.—City asks bids until April 11 for 15,000 square yards of asphalt-concrete paving, 65,000 square yards of clay paving, 48,000 cubic yards of excavation, concrete curbs and gutters.

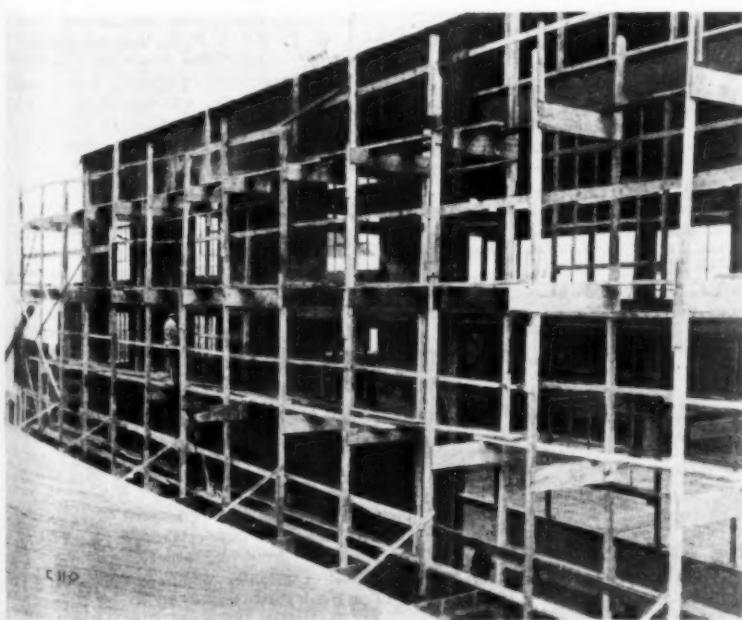
Nashville, N. C.—Nash county will build highway estimated to cost \$24,000.

Pensacola, Fla.—City opened bids March 13 for 2700 square yards of street paving and 2200 linear feet of concrete curbing.

St. Albans, W. Va.—City receives bids until April 13 for 13,200 square yards of paving and 6000 cubic yards of grading, 100,000 square yards of sidewalk and 2000 cubic yards of excavation.

Washington, D. C.—City receives bids until March 28 for 61,800 cubic yards of street grading.

The Florence Mill, Forest City, N. C., has retained E. S. Draper, landscape architect, Charlotte, N. C., to replan and improve cotton mill village.



STEEL-FRAME WAREHOUSE WITH "GUNITE" WALLS. VARIOUS STAGES OF WORK SHOWN.



STEEL WORK OF GRAND CENTRAL DEPOT, NEW YORK, COVERED WITH CEMENT GUN.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

AIRPLANE PLANTS, STATIONS, ETC.

Ala., Montgomery—Airplane Repair Shop.—War Dept., Capt. H. R. Eyrick, in charge of construction at Montgomery, Americus, Ga., and West Point, Ga., will expend from \$800,000 to \$1,000,000 to build and equip plant for repairing airplanes, supplying airplane parts, etc., to all airplane stations in South; has 400-acre site; preparing plans and specifications; Government will also increase Taylor flying field by 33½ per cent., and all future buildings will be of steel construction; these will include four hangars, machine shop and oil warehouse; original estimated cost \$1,250,000; will increase to \$1,600,000.

N. C., Raleigh—Airplanes.—Harry N. Atwood will build plant to manufacture air planes.

BRIDGES, CULVERTS, VIADUCTS

Ala., Sheffield—Southern Railway, Curtis Dougherty, Chief Engr., Cincinnati, Ohio, let contract to Reid & Love, Charlotte, N. C., to construct bridge across Tennessee River.

La., Monroe—Ouachita Parish Police Jury will build \$15,000 bridge across Bayou De Sard.

S. C., Spartanburg—Spartanburg County Highway Commrs. let contract to Luten Bridge Co., Knoxville, Tenn., and P. S. Minus, Asheville, N. C., to construct 7 bridges; cost \$26,931; Reid Tull, Engr., Spartanburg. (Bids lately noted.)

W. Va., Franklin—Pendleton County Commissioners will construct 2 concrete slab bridges; open bids April 1; blue prints with State Road Commission, Morgantown, W. Va. (See Machinery Wanted—Bridge Construction.)

W. Va., Williamson—Mingo County Commissioners will construct 7 concrete girder bridges; open bids April 4; blue prints with State Road Commission, Morgantown, W. Va. (See Machinery Wanted—Bridge Construction.)

Ala., Mobile—Gulf States Canning Co. chartered with \$25,000 capital by Matthew D. Murphy, Jno. P. Cann and C. W. Martin, all of Wilmington, Del.

Ala., Mobile—Cudahy & Company (main

office, Kansas City, Mo.) will build smokehouse for meat-packing plant; 1 story; brick and concrete; unloading and loading docks; coolers to be lined with tiling throughout; install refrigerating plant; cost of buildings and equipment \$50,000. (Reported in January to build branch meat-packing plant.)

Fla., Daytona—John D. Steely, Volusia and Beach Sts., will establish cannery; daily capacity 1000 cans, mainly vegetables. (See Machinery Wanted—Canning Machinery.)

Fla., Clearwater—Board of Trade, C. A. Kern, Secy., lately noted as interested in plan to organize cannery factory, advises Manufacturers Record: Company to have \$50,000 capital; build factory with capacity 6 carloads fruit daily; also equip to can fish, cabbage, etc.

Fla., Hastings—Mrs. J. J. Vandergrift will establish cannery.

Ga., Fort Gaines—Chattahoochee Canning Co. organized by J. T. Lindsey, Geo. O. Shivers, M. E. Peterson and others.

Ky., Hopkinsville—Nagle-Dahnke-Walker Co. of Union City, Tenn., are reported to build cannery.

Ky., Paducah—Roy W. McKinney and Nagel-Dahnke-Walker Co. of Union City, Tenn., are reported to build tomato cannery costing \$65,000 to \$70,000.

Ky., Paducah—R. W. McKinney advises Manufacturers Record: Will organize company to establish cannery for beans, tomatoes, pumpkins and sweet potatoes; has building; install machinery, cost about \$20,000. Paducah Vinegar Co. lately noted to establish cannery, with equipment ordered, and to erect addition. (See Machinery Wanted—Boilers.)

La., New Orleans—Hoth Bros., 1135 Magazine St., will build meat-packing plant, costing \$25,000; reinforced concrete construction.

Md., Adamstown—Adamstown Canning & Supply Co., J. Franklin Thomas, Prest., will rebuild cannery reported burned at loss of \$100,000.

Md., Baltimore—W. H. Killian Co., Miller's Wharf, foot of Caroline St., acquired building on Alceanna St., between Central Ave. and Eden St.; will remodel; erect addition of corrugated iron and steel; install boiler and power plants; cost \$20,000.

Ala., Mobile—Cudahy & Company (main

Md., Baltimore—Swift & Co. (main office, Chicago) purchased 4-story warehouse at 308-10 S. Eutaw St., and 3-story warehouse at 312 S. Eutaw St.; plans improvements to include cold-storage facilities.

Md., Baltimore—Roberts Brothers, Wolfe and Preston Sts., will build cannery and warehouse plant; to include 86x65-ft. main structure, 86x45-ft. addition and 20x20-ft. boiler-house; each 1 story; J. Franklin Nelker, Archt., 209 Professional Bldg., Baltimore.

Mo., St. Louis—Siehoff Packing Co., capital \$125,000, incptd. by Emil Siehoff, Simon Zeitler and Geo. H. Hohmann.

N. C., Newbern—Martin & Derickson of Dover, Del., are reported to build tomato cannery.

Tex., Dallas—Adolphus Hotel will establish cannery for fruits and vegetables; steam process.

Va., Gordonsville—Wilmington Canning Co., W. H. Hannah, Mgr., Palmyra, Va., plans establishing branch cannery with daily capacity 1000 cases tomatoes.

Va., Heathsville—Dymers Creek Packing Co., W. E. Hathaway, Prest., White Stone, Va., will install canning machinery; has fish-factory equipment. (Lately noted organized.)

CLAYWORKING PLANTS

N. C., Asheville—Bricks.—Elk Mountain Brick Co., capital \$50,000, incptd. by Guy Weaver, Geo. C. Shehan and Fred. Sale.

S. C., Orangeburg—Bricks.—Edisto Brick Co. increased capital from \$5000 to \$10,000.

COAL MINES AND COKE OVENS

Ala., Cullman—Cullman Coal Co., capital \$5000, chartered; H. L. Morrow, Prest.; I. W. Tull, V.-P.; W. H. Kirkland, Secy.-Treas.

Ala., Jasper—Winston County Fuel Co. organized; R. H. Palmer, Prest.-Mgr.; C. B. Stainaker, V.-P.; J. M. Hayes, Secy.-Treas.; develop 40 acres; daily output 100 tons coal. (Lately noted chartered, \$4500 capital.)

Ala., Birmingham—Black Warrior Coal Co., capital \$100,000, incptd.; W. J. Penhaligon, Prest.; W. B. Hillhouse, V.-P. and Gen. Mgr.; D. H. Brown, Secy.-Treas.

Ky., Praise—Virginia-Elkhorn By-Product Coal Co., 717 First National Bank, Huntington, W. Va., incptd.; capital \$300,000; advises Manufacturers Record: J. R. Slayton, Prest.; H. T. Lambert, V.-P. and Consult. Engr.; total acreage to be acquired and developed, 1500; secured 462 acres for first plant; output 1000 tons per 10 hrs.; install equipment. (See Machinery Wanted—Mining Machinery; Electric-Power Plant; Cars.)

Ky., Rockhold—Brown-Parks Coal Co. organized; M. L. Parks, Prest.; J. M. Brown, Secy.-Treas.; operate wagon mine; daily output 25 to 30 tons. (Lately noted incptd.)

Ky., South Carrollton—Green River Coal & Oil Co., 1606 Inter-Southern Bldg., Louisville, Ky., incptd., capital \$300,000; J. T. Parsons, Prest., Leitchfield, Ky.; A. C. Glasscock, V.-P., Hardinsburg, Ky.; R. M. Hayes, Secy., Treas. and Mgr.; develop 200 acres; acquire established mill, with increased acreage; overhaul and construct additional shaft; capacity to be 1000 tons; date for opening mining machinery bids not set.

N. C., Andrews—Ferebee & Young Co., capital \$125,000, incptd.; Percy B. Ferebee, Prest.-Mgr.; W. S. Black, V.-P.; Davidson Young, Secy.-Treas.; develop 50 cars; daily output 3 cars.

Okla., Moffett—Pike Coal Co., 406 Garrison Ave., Fort Smith, Ark., organized; C. R. Phillips, Prest.; J. H. Brown, V.-P. and Supt.; W. W. Phillips, Secy.-Treas.; develop 50 acres; commence operation as strip pit. (Lately noted incptd., capital \$10,000.)

Va., Richmond—United Fuel Corp., capital \$500,000, chartered; Sidney J. Dudley, Prest., Hampton, Va.; Grocer C. Goodwin, Secy., Richmond.

W. Va., Bluefield—Plum Eagle Coal Co., chartered by J. M. Randich of Princeton, W. Va.; W. C. Morgan of Vivian, W. Va., J. N. Smith of Athens, W. Va., and others.

W. Va., Charleston—New River Fuel Co., capital \$50,000, incptd. by S. B. Avis, Ivory C. Jordan, N. F. Young and others.

W. Va., Clarksburg—Parr Coal Co., capital \$100,000, incptd. by Chas. S. Carr and others.

W. Va., Kingwood.—Inland Fuel Co., Greensburg, Pa., purchased Central West Coal Co.'s property; includes 250 acres land with plant having daily capacity 300 tons coal; proposes expending \$75,000 to drive shaft and build power plant.

COTTON COMPRESSES AND GINS

Ark., Rector—Luther King will erect gin-house, cotton-house and engine-room; ordinary construction; date of opening building proposals not set; open machinery bids May 1. King Mercantile Co. lately noted to rebuild cotton gin reported burned at loss of \$29,000. (See Machinery Wanted—Cotton-ginning Machinery.)

Fla., Dania—W. R. Johnston & Co., Box 144, organized; W. R. Johnston, Prest.-Mgr.; G. M. Bloom, V.-P.; erect fireproof building; install cotton-ginning machinery.

Ky., Hickman—C. T. Bondurant will rebuild cotton gin reported burned at loss of \$20,000.

S. C., Bloomville—F. C. Thomas Co., capital \$24,000, incptd. by F. C. Thomas, Joe S. Thomas and J. C. Phillips; operate cotton gin and grist mill.

Tex., Abilene—Continental Oil Cotton Co., 441 Mesquite St., E. S. Kean, Secy.-Treas., advises Manufacturers Record relative to lately-noted rebuilding of burned building; concrete walls practically uninjured; will replace gin machinery, except engine and boiler. (See Machinery Wanted—Cotton-ginning Machinery.)

COTTONSEED-OIL MILLS

Ala., Eufaula—Eufaula Cotton Oil Co. will rebuild plant reported burned at loss of \$75,000.

Tex., Fort Worth—Traders' Oil Mill Co. capital \$150,000, incptd. by B. W. Couch, C. H. Custer and Lee L. Russell; build cottonseed oil mill; has site.

DRAINAGE SYSTEMS

Fla., Pomello—Jas. L. Waterbury Co., 129 La Salle St., Chicago, will construct 100 canals, laterals and ditches, 12 to 3 ft. wide; sand and dirt excavation; estimated cost \$90,000; open construction bids March 16; drain 10,000 acres, upper Manatee Valley, Manatee County, for citrus groves; Engr., Hiram McElroy, 410½ Franklin St., Tampa, Fla. (Lately noted.)

Ga., Fayetteville—Fayette County Drainage District No. 1 Comms., Lester C. Dickson, Secy., let contract Thompson & Mosley of Atlanta, Ga., at \$22,500 to dredge Camp Creek in Clayton and Fayette counties; 2 lateral ditches; main ditch 9½ mi. long, 216,500 cu. yds. excavation; Dodd and McLeroy Branches, 13,500 cu. yds. excavation and 60 acres clearing; Knox T. Thomas, Engr., 502 Forsyth Bldg., Atlanta. (Lately noted inviting bids.)

La., Lake Charles—Farmers' Land & Canal Co., W. P. Weber, Prest., has let contract to construct additional canals for drainage.

S. C., Georgetown—Georgetown Farm Land & Homeseekers Co. will construct 11 mi. drainage canals; bids until April 8; Engrs., McCrady Bros. & Cheves, Charleston, S. C. (See Machinery Wanted—Drainage.)

ELECTRIC PLANTS

Ala., Chickasaw—Chickasaw Shipbuilding Co., J. F. Coleman, Gen. Supt., will build \$750,000 electric generating station in connection with \$10,000,000 shipyard now under construction.

Ark., Buffalo—Dixie Girl Mining Co., A. C. Barnhart, Constr. Engr., 800 Wheat Bldg., Fort Worth, Tex., contemplates installing 10 K. W. electric-light plant.

Ark., Helena—Helena Gas & Electric Co. is reported as contemplating enlargement of plant and installation of machinery. (Lately noted to have increased capital from \$300,000 to \$500,000.)

Ga., Ty Ty—City voted \$7000 bonds to construct electric-light plant; R. R. Pickett, Mayor. (Noted in February.)

Ky., Louisville—Mountain Gem Coal Co., capital \$10,000, incptd. by C. T. Meredith, E. L. Ruesch and L. N. Kirk.

Md., McDowell—Royal Elkhorn Coal Co., 428 Ohio Bldg., Toledo, Ohio, organized; H.

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MANUFACTURERS RECORD.

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L. Poole, Prest.; D. A. Martin, Secy.-Treas.; R. J. Thomas, Mgr., 311 24th St., Ashland, Ky.; develop 125 acres; daily output 300 tons; install drum for incline.

Miss., Crystal Springs.—City will issue \$500 bonds to install new equipment in electric-light plant. Address The Mayor.

Okla., Bristow.—City defeated \$25,000 bonds to purchase electric-light plant and \$11,000 for improvements to include establishment of white way and additional street lights. Address The Mayor. (Lately noted to vote.)

Okla., Hominy.—Hominy Ice, Light & Power Co. will install additional electric-generating unit, consisting of 150 H. P. gas engine directly connected to 100 K. W., 3-phase, 60-cycle, 2300-volt generator; purchased equipment.

Okla., Shattuck.—City, A. C. Oliver, Mayor, will expend \$20,000 to \$30,000 on electric plant construction; has power-house; develop 150 to 200 H. P.; Engrs., Burns & McDonnell, Kansas City, Mo.; date of opening construction bids not set. Lately noted. (See Machinery Wanted—Electric-plant Equipment.)

Tenn., Oliver Springs.—Hunters Trace Coal Co., 1121 Hamilton Bank Bldg., Chattanooga, Tenn., organized; John F. Walter, Prest., Chattanooga; L. O. Scott, V.-P.; Harriman, Tenn.; T. O. Busbee, Secy.-Treas.; Alex. Hall, Mgr.; develop 180 acres. (Lately noted incptd., capital \$6000.)

Tex., Grapevine.—Grapevine Ice & Light Co., F. W. Burrough, official, will install lately-noted equipment; engines, generators, switchboard, etc. (See Machinery Wanted—Electric-light Equipment, etc.)

Tex., McKinney.—Texas Light & Power Co. will rebuild electric-light plant burned at loss of \$8000.

W. Va., Blue Jay.—P. C. Lynch Coal Co., capital \$30,000, incptd. by P. C. Lynch, W. H. Cunningham and others; develop mines on Stonecoal Creek.

W. Va., Olcott.—Kanawha Central Power Co., capital \$100,000, incptd. by S. B. Avis, Ivory C. Jordan, N. F. Young and others, all of Charleston, W. Va.

FERTILIZER FACTORIES

Fla., Miami.—Co-operative Fertilizer Co., capital \$30,000, incptd.; C. M. Brown, Sr., Prest.; J. Petersen, V.-P.; Chas. D. Rowe, Treas.; John E. Holland, Secy.

FLOUR, FEED AND MEAL MILLS

Ark., Diaz.—Wilmans Mercantile Co. (J. S. Wilmans, E. B. Wilmans and R. D. Wilmans) will erect 24x60-ft. mill-construction building; crusher and pulverizer; manufacture feed from cottonseed hulls. (Lately noted.)

Ark., Norfolk.—N. A. Gillihan will install grist mill and blacksmith shop; building under construction.

Ark., Stuttgart.—Stuttgart Flour Mills will erect flour and cornmeal and mill and grain elevator; main building 36x100 ft.; both structures 3 stories; daily capacity 75 bbls. flour and 150 bbls. cornmeal.

Miss., Grenada.—W. L. Hamby will rebuild grist mill reported burned.

Miss., Meridian.—Sturges Company, capital \$25,000, incptd. by Wilton Sturges, R. W. Sturges and L. Goldin.

S. C., Bloomerville.—F. C. Thomas Co., capital \$24,000, incptd. by F. C. Thomas, Joe S. S. C., Greenville.—Eagle Roller Mills will rebuild mills reported burned at loss of \$25,000.

Thomas and J. C. Phillips; operate grist mill and cotton gin.

Tex., Granbury.—Granbury Milling Co. will install power equipment, including boilers, smokestack and engines. (See Machinery Wanted—Power Equipment.)

FOUNDRY AND MACHINE PLANTS

Ala., Anniston.—Machine Shop, etc.—Woodstock Operating Corporation will rebuild machine shop, blacksmith shop, supply-house and laboratory reported burned at several thousand dollars.

Ark., Norfolk.—Blacksmith Shop.—N. A. Gillihan will install blacksmith shop and grist mill; building under construction.

Ky., Owensboro.—Mill Machinery.—Anglo-American Mill Co. increased capital from \$1,000,000 to \$1,250,000.

Md., Baltimore—Iron Works.—P. Kennedy Foundry Co., Charles and Wells Sts., is having plans prepared for additional building in rear of present plant; 2 stories; 100x70 ft.; brick and concrete.

S. C., Greenville.—Cotton Machinery.—Acme Loom, Reed & Harness Co. organized with \$40,000; merger of Acme Loom, Harness & Reed Co. and Greenville Loom, Reed & Harness Co.

Tex., Dallas.—Machine Plant.—Briggs-Weaver Machinery Co. increased capital from \$300,000 to \$500,000.

Okla., Oklahoma City—Ice Machines.—Interstate Tropic Ice Machine Co., capital \$300,000, incptd. by Robt. Burns, O. P. Estes, both of Oklahoma City, and J. A. Gaines, Kansas City.

GAS AND OIL ENTERPRISES

Ky., Louisville.—Greely Oil Co., capital \$50,000, incptd. by C. Dunkerson, A. C. Van Winkle and K. U. Meguire.

La., Ruston—Gas Plant.—Louis Lock of Monroe, La., has municipal franchise to furnish gas; will drill 2 wells and if sufficient gas is not obtained will pipe gas from Monroe field.

Okla., Ardmore.—Graham Oil & Gas Co., capital \$50,000, incptd. by J. F. Easley and others.

Okla., Ardmore.—S. & D. Oil Co. will drill for oil; lately noted incptd., capital \$10,000, by Claude Bell, Box 24, Wirt, Okla., and others. (See Machinery Wanted—Well Casting.)

Okla., Avant.—Shirley Oil & Gas Co., capital \$10,000, incptd. by H. J. Ruland and others.

Okla., Comanche, East Headton Oil & Gas Co., capital \$50,000, incptd. by C. S. Wade and others.

Tex., Bangs.—Lucky Six Oil & Gas Co., capital \$120,000, incptd. by Chas. Hart, R. F. Hart and Chas. Strange.

Tex., Brownwood—Oil Refinery.—Brownard Refining Co., capital \$150,000, organized by Ed. F. Miller and C. V. Miller, both of Ardmore, Okla.; build oil refinery; ordered material.

Tex., Brownwood—Oil Refinery.—Brownard Refining Co. will build oil refinery; J. W. Johnson of Ardmore, Okla., will superintend construction; ordered machinery.

Tex., Electra.—Hasty Oil Co., capital \$65,000, incptd. by E. B. Massie, B. M. Hester and J. H. Johnson.

incptd. by R. H. Yates, A. M. Kenney and C. Pierce Daulton.

Okla., Oklahoma City.—Indian Petroleum Co., capital \$75,000, incptd. by E. H. Hudley, U. S. Connor and J. E. West.

Okla., Oklahoma City.—Louallen Oil Co., capital \$10,000, incptd. by A. H. Cutrell and others.

Okla., Tulsa.—Service Petroleum Co., capital \$25,000, incptd. by M. B. Duke and others.

Okla., Sayre.—Rosemary Oil & Mining Co., capital \$25,000, incptd. by E. G. McComas, T. R. Wise and W. E. Baker.

Okla., Tulsa.—Wolfe Drilling Co., capital \$6000, incptd. by A. R. Thomas and others.

Okla., Yale.—C. G. & M. Oil & Refining Co., organized; P. D. Mitchell, Secy.; drill wells in shallow fields. Lately noted incptd., capital \$50,000. (See Machinery Wanted—Well-drilling Equipment.)

Tenn., Nashville.—Melrose Oil Co., capital \$30,000, incptd. by Dandridge Caldwell, A. W. Kirkman, J. W. Cantrell and others.

Tex., Bangs.—Lucky Six Oil & Gas Co., capital \$120,000, incptd. by Chas. Hart, R. F. Hart and Chas. Strange.

Tex., Brownwood—Oil Refinery.—Brownard Refining Co., capital \$150,000, organized by Ed. F. Miller and C. V. Miller, both of Ardmore, Okla.; build oil refinery; ordered material.

Tex., Brownwood—Oil Refinery.—Brownard Refining Co. will build oil refinery; J. W. Johnson of Ardmore, Okla., will superintend construction; ordered machinery.

Tex., Electra.—Hasty Oil Co., capital \$65,000, incptd. by E. B. Massie, B. M. Hester and J. H. Johnson.

THE OFFICIAL PROPOSAL ADVERTISEMENTS

Appear This Week On Pages 85 and 91

Notices of bond sales, construction and improvement contracts to be let, equipment and supplies to be purchased, franchises offered, etc., inserted in this department bring bids from the most important bond buyers, investors, financial institutions, contractors, engineers, architects, manufacturers, and supply houses throughout the country.

Rate 25 cents per line per insertion.

The PROPOSAL department goes to press 5 P. M. Tuesday for the issue of the following Thursday. If you cannot mail advertisement in time for any particular issue, please wire copy by day letter.

Send for booklet of testimonial letters from public officials who have used the PROPOSAL department of the Manufacturers Record, for bond sales, construction work, etc.

Oklahoma, Cushing.—Will-Buell Oil & Gas Co., capital \$10,000, incptd. by D. O. Buell and others.

Oklahoma, Cushing—Oil Pipe Line.—Sinclair Gulf Pipe Line Co., Tulsa, will build 6-in. oil pipe line from Cushing to Headton.

Oklahoma, Duncan.—Strateline Oil Co., capital \$10,000, incptd. by G. H. Schaeffer and others.

Oklahoma, Duncan.—Little Beaver Oil Co., capital \$100,000, incptd. by R. H. Brown and others.

Oklahoma, Enid.—Eureka Petroleum Co., capital \$5000, incptd. by H. A. McDonald and others.

Oklahoma, Francis—Oil Refinery.—Francis Oil & Refining Co., capital \$500,000, incptd. by R. F. Blankenship of Francis, C. M. Martin and G. T. Blankenship of Ada, Okla.

Oklahoma, Frederick.—Taylor Oil & Gas Co., capital \$30,000, incptd. by M. T. Taylor and others.

Oklahoma, Garber—Oil Refinery.—Garber Refining Co., capital \$50,000, incptd. by J. E. and H. E. Lawhead of Enid, and E. M. Harold, Pittsburgh, Pa.

Oklahoma, Hartshorne.—Savage Oil & Gas Co., capital \$60,000, incptd. by J. P. Savage and others.

Oklahoma, Headton.—G. G. T. Oil & Gas Co., capital \$100,000, incptd. by C. M. Sewell of Headton, F. M. Farris of Hastings, Okla., and J. E. Turner of Wirt, Okla.

Oklahoma, Heaven.—Wyandotte Oil & Gas Co., capital \$2500, incptd. by H. Rover Flanagan and others.

Oklahoma, Miami.—Dix Drilling Co., capital \$25,000, incptd. by H. E. Thompson and others.

Oklahoma, Oklahoma City.—Elkhorn Operating Co., capital \$100,000, incptd. by A. Hoover, I. M. Shear and J. R. Branson.

Oklahoma, Oklahoma City—Oil Refinery.—Golden Belt Refining Co., capital \$50,000,

Tex., Electra—Oil Refinery.—Electra Oil & Refining Co. purchased 245 acres; will construct oil refinery.

Tex., Cisco—Oil Refinery.—Beaver Valley Oil & Refining Co. purchased site for oil refinery.

Tex., San Antonio.—Alum Creek Oil Co., capital \$25,000, incptd. by B. L. Rayborn and others.

Tex., San Antonio.—Canning and Packing Plants.

Tenn., Nashville.—Cumberland Power Co., capital \$100,000, incptd. by F. D. Buck, M. L. Borty and K. E. Longfield, all of Wilmington, Del.

ICE AND COLD-STORAGE PLANTS

Tenn., Nashville.—Cumberland Power Co., capital \$100,000, incptd. by F. D. Buck, M. L. Borty and K. E. Longfield, all of Wilmington, Del.

Tenn., Miami.—Swift & Company, Chicago, let contract to R. C. Gardner, Miami, to erect 50x110-ft. cold-storage warehouse.

Tenn., Americus.—Aries Plantation Co., capital \$150,000, organized by W. T. Calhoun of Americus, Morgan H. Grace and John H. Eden of Great Neck, N. Y.

Tenn., Arlington.—City will construct ice and cold-storage plant; voted bonds. Address The Mayor.

Tenn., Headton.—Headton Ice Co., R. O. Stull, Mgr., will erect 100x50-ft. building with concrete walls, galvanized iron roof; cost \$5000; construction by the company; J. P. Lundgren, Headton, Constr. Engr.; purchased machinery, including boilers; daily capacity 30 tons ice. (Lately noted incptd., capital \$40,000.)

Tenn., Hartshorne.—Hartshorne Oil & Gas Co., capital \$100,000, incptd. by H. E. Thompson and others.

Tenn., Heaven.—Wyandotte Oil & Gas Co., capital \$2500, incptd. by H. Rover Flanagan and others.

Tenn., Harlingen.—A. Goldanimer will build ice plant.

Tenn., Grapevine.—Grapevine Ice & Light Co., F. W. Burrough, official, will install lately-noted equipment; engines, generators, switchboard, etc. See Electric Plants. (See Machinery Wanted—Electric-light Equipment, etc.)

Tenn., Houston.—Josey-Miller Co., Beaumont, Tex., is reported to build ice plant.

Tenn., San Angelo.—Armour & Company (main office, Chicago) is reported to have leased warehouse and will equip for cold-storage of meat.

IRRIGATION SYSTEMS

Ark., Deavill Bluff.—S. L. Sheets of Kalamazoo, Mich., and associates plan to construct canal 14 mi. long to irrigate 20,000 acres land in Prairie and Arkansas counties; propose to secure water from White River, near Deavill Bluff, lift to height of 74 ft., place in canal and carry 4 ft. above land level.

IRON AND STEEL PLANTS

Ala., Fairfield—Steel Wire Mills.—American Steel & Wire Co. increased capital from \$100,000 to \$2,000,000.

Ala., Sheffield—Iron Furnace.—Sheffield Iron Corp. will blow in iron furnace in April; this will give company daily production of 200 to 250 tons foundry iron.

LAND DEVELOPMENTS

Ala., Birmingham.—City let contract Jas. L. Carey of Brooklyn, N. Y., for improvements to East Lake Park, to include roller coaster with 2000-ft. runway; J. Ellis Brown, Commr. Public Utilities. (Lately noted.)

Fla., Pensacola.—Florida Home Orchards Co., capital \$10,000, incptd.; L. S. Brown, Prest.; E. Hunter Brown, V.-P.; A. T. Barkdull, Secy.-Treas.

Fla., Vero.—Vinnedge Farms Corporation, capital \$100,000, chartered by L. H. Vinnedge, Prest.; Mrs. A. F. Vinnedge, V.-P.; C. M. Vinnedge, Gen. Mgr.; Geo. M. Willing, Secy.-Treas.

Ky., Lexington.—Lockleel Farms, capital \$50,000, incptd. by Geo. R. Carey, John G. Still; John Skain and C. B. Raleigh.

La., Abbeville.—Moist Plantation Co. incptd. with \$50,000 capital by Albert P. Robt. E. Putnam, both of Abbeville, and Frank A. Godechaux of New Orleans; develop rice plantation.

La., Abbeville.—Vermillion Farms Co. incptd. with \$200,000 capital by E. P. Putnam, Sr., E. P. Putnam, Jr., both of Abbeville; Frank A. Godechaux of New Orleans, and others; leased rice plantation; increase developments.

La., Remy.—Landache Company chartered with \$81,000 capital by J. T. Landache of Remy, J. C. Le Bourgeois and B. W. Hehry of New Orleans; develop rice land; establish dairy, etc.

La., New Orleans.—Atchafalaya-Terre-Vermillion Co., authorized capital \$350,000, organized to develop rice land and probably construct navigable canal from Atchafalaya to Teche; L. O. Drouillard, Prest.; Fernand Mouton, V.-P.; W. B. Knox, Secy.; W. H. Hunter, Treas.

N. C., Forest City.—Florence Mills retained E. S. Draper, Landscape Archt., Charlotte, N. C., to replan mill village.

N. C., Granite Falls.—A. A. Shuford, Jr., Hickory, N. C., retained E. S. Draper, Landscape Archt., Trust Bldg., Charlotte, N. C., to develop model farm. (See Machinery Wanted—Farm Buildings Data; Sewage-disposal Plants.)

N. C., Springdale.—Spencer Mills will complete mill village development; improvements to include streets, parks, sidewalks, community developments, etc.; plans by E. S. Draper, Trust Bldg., Charlotte, N. C.; houses are erected. (See Machinery Wanted—Drain Pipe, etc.; Iron Poles.)

Va., Fieldale.—Carolina Cotton & Woolen Mills Co., Spray, N. C., retained E. S. Draper, Landscape Archt., Trust Bldg., Charlotte, N. C., for developments.

Va., Penniman.—Penniman Land Corporation, capital \$25,000, chartered; Frank Armitstead, Prest.; R. B. Watts, Secy.-Treas.; both of Williamsburg, Va.

LUMBER MANUFACTURING

Ala., Tuscaloosa.—Allied Sales Corp., capital \$100,000, chartered by Thos. Goodall, H. P. Ward and others.

Fla., Helen.—Helen Lumber Co. will rebuild planing mill, 3 drykilns, water tank and fuelhouse reported burned at loss of \$75,000, including 750,000 ft. lumber.

Fla., Vero.—G. F. Howard will rebuild saw mill reported burned.

Fla., Williston.—Long Pasley Lumber Co. will rebuild mill reported burned at loss of \$30,000.

Ky., Frankfort.—Florala Saw Mill Co., capital \$500,000, inceptd. by H. M. Collins, G. M. Gayle, A. A. Oppelt.

Ky., Winchester.—Winchester Lumber & Manufacturing Co. will rebuild manufacturing building and 3 drykilns reported burned.

La., Vinton.—Vinton Timber Co., capital \$35,000, chartered; C. L. H. Marshburn, Prest.

Miss., Grenada.—W. L. Hamby will rebuild sawmill reported burned.

S. C., Martins.—Martins Mill Co., capital \$50,000, inceptd. by Edgar A. Brown and J. J. Bush, both of Barnwell, S. C.

Tex., Roxton.—Roxton Lumber Co., capital \$30,000, inceptd. by E. R. Johnson, Wm. Armstrong and E. F. Strube.

Tex., Sweeny.—Gulf Coast Hardwood Milling Co. organized; W. H. Gilmartin, Prest.; C. F. Browning, V.P.; T. E. Cummings, Secy.; P. V. Petty, Mgr.; all of Fort Worth, Tex.; completed mill-construction buildings, including main mill, stock building, bunkhouses, office buildings, dining-room and kitchen; cost \$8000; sawmill machinery is supplied, cost \$6000; manufacture wooden ship material and dimension hardwood stock. (In January, noted chartered, capital \$5000.)

Va., Dungannon.—Appalachian Lumber Co., J. M. Buck, Prest. Johnson, City, Tenn., lately noted as purchasing timber and to install sawmill, advises Manufacturers Record: Intend to let contracts for sawing and logging. (See Machinery Wanted—Rails.)

W. Va., Huntington.—Dickerson Lumber Co., capital \$100,000, inceptd. by G. J. Dickerson, H. C. Duncan, Jr., L. F. Queensberry and others.

W. Va., Jane Lew.—Liberty Lumber Co., capital \$100,000, inceptd. by I. J. Davis and others.

METAL-WORKING PLANTS

Ky., Covington.—Weather Strips.—Tri-State Metal Weather Strip Co., capital \$1000, inceptd. by John Gaiser, L. B. Simpson and C. Gregory.

MINING

Ala., Gadsden—Manganese.—I. A. Hebert, N. H. Sewall and J. Pasquier, 612 Broad St., will develop 120 acres; shovels, picks and wheelbarrows. (Supersedes recent item under Ala., Ivalee.)

Ark., Buffalo—Lead and Zinc.—Dixie Girl Mining Co., 600 Wheat Bldg., Fort Worth, Tex., develops 120 acres; capacity of 150 tons to be increased to 300 tons; Constr. Engr., A. C. Barnhart, Buffalo; contemplates installing electric-light plant. (Under Ark., Cotter, lately noted as to install additional machinery; equipment purchased.)

Ark., Harrison—Lead and Zinc.—W. A. McCurry will build concentrating mill for lead and zinc mines.

Ark., Rogers—Copper.—M. F. Gurler of Tulsa, Okla., and H. C. Holderman of Joplin, Mo., leased 2000 acres Rogers and contemplate developing copper deposits.

Mo., St. Louis—Silica.—Aubuchon Silica Mining & Milling Co., capital \$100,000, inceptd. by Carl E. Aubuchon, Chas. Spier and Thos. B. Aubuchon.

N. C., Asheville—Garnets.—H. B. Stevens and J. C. Arbogast will mine garnet quartz.

Okla., Ada—Lead and Zinc.—Panto Lead & Zinc Co., capital \$100,000, inceptd. by J. G. Witherspoon, Harmon Ebey and Frank Jackson.

Okla., Duncan—Lead and Zinc.—Duncan Lead & Zinc Co., capital \$200,000, inceptd. by J. H. Goodnight, W. E. Williams and W. M. Lockett.

Okla., Durant—Lead and Zinc.—Red River Valley Lead & Zinc Co., capital \$50,000, inceptd. by Geo. B. Morris and G. Thompson of Durant and J. H. Holland of Achille, Okla.

Okla., Enid.—Julian Mining Co., capital \$250,000, inceptd. by W. L. Kendall, Wm. E. Ellis and Julian Field.

Okla., Quapaw—Zinc.—Bethlehem Zinc Co., 229 Lee Bldg., organized; T. L. Wade, Prest.; Marlow, Okla.; E. E. Rodgers, V.P.; Ed J. Delaney, Secy.-Treas.; both of Oklahoma City; H. H. Hughes, Mgr., Quapaw; develop 100 acres; daily capacity of mill, 250 tons; machinery purchased. (Lately noted as to erect mill.)

Okla., Marble City.—Joe Bee Mining Co., capital \$50,000, inceptd. by G. B. Dotson of

Marble City, A. H. Henderson of Berryville, Ark., and J. E. Shepard of Harrison, Ark.

Okla., Miami—Lead and Zinc.—Lone Star Lead & Zinc Co., capital \$200,000, inceptd. by B. C. Clark of Purcell, Okla.; C. A. Clark of Oklahoma City and R. I. Tibbs of Maypearl, Tex.

Okla., Miami—Miami Giant Mining Co., capital \$175,000, inceptd. by M. E. Townsend of Oklahoma City—Zinc.—Premium Zinc Mining Co., capital \$75,000, inceptd. by R. L. Ritchie and others.

Okla., Oklahoma City.—Pearl Mining Co., capital \$5000, inceptd. by P. A. Swain and others.

Okla., Tulsa.—Highland Boy Mining Co., capital \$35,000, inceptd. by John W. Ellis and others.

Okla., Ferguson—Salt.—Blaine County Salt Co. organized with J. E. Cronkhite, Prest.; J. B. Scott, V.P.; S. R. Gilchrist, Secy.; all of Hitchcock, Okla.; owns and controls land containing salt springs; will pipe brine, by gravity, 4 mi.; erect evaporating plant, daily capacity 400 bbls. Lately noted inceptd., capital \$200,000. (See Machinery Wanted—Salt Plant, etc.; Pans; Pipe; Electrical Equipment; Lumber.)

Okla., Elk City—Lead and Zinc.—Lucky Elk Mining Co. organized; W. A. Vinyard, Prest.; C. G. Glaze, V.P.; A. B. Clampitt, Secy.-Treas.; G. H. Crumley, Mgr.; develop 40 acres. Lately noted inceptd., capital \$50,000. (See Machinery Wanted—Mining Machinery.)

Okla., Sayre.—Rosemary Oil & Mining Co., capital \$25,000, inceptd. by E. G. McComas, T. R. Wise and W. E. Baker.

S. C., Spartanburg.—Cherokee Mining Co., capital \$5000, inceptd. by C. R. Willard, W. G. Willard and R. E. Boggs.

Tex., Houston—Sand and Gravel.—Rosenberg Sand & Gravel Co., capital \$5000, inceptd. by J. R. Wilson, H. A. Hayek and W. K. Couch.

Tex., Laredo.—Stucky-Hamilton Mining & Milling Co., capital \$5000, inceptd. by H. A. Stucky, Jno. Hamilton and Edw. T. Hamilton.

Tex., McDade.—Colorado Mining Co., R. F. B. No. 2, organized; D. Buniya, Prest.; R. Buniya, Secy.-Treas.; R. W. Carr, Mgr.; develop 300 acres; daily output 400 tons; machinery supplied. (Lately noted under San Antonio.)

Tex., Medicine Mound—Copper.—T. Sanford Gibbs, Chillicothe, Tex., is reported as planning to build ore-treating plant at mines, Hardeman County.

Virginia—Pyrites.—Southern Pyrites Corporation chartered with \$800,000 capital by W. Y. Westervelt, J. N. Bailey and R. L. Wensley, all of New York.

MISCELLANEOUS CONSTRUCTION

Fla., Pensacola—Pier and Quay Wall.—Bureau Yards and Docks, Navy-Dept., Washington, D. C., let contract F. G. Proudfoot, 410 Franklin St., Tampa, at \$477,024 to construct timber and concrete earth-filled pier and quay wall at Naval Air Station; double concrete pier; project 581 ft. into harbor with 60-ft. width; construction largely of concrete with reinforced concrete piling and creosoted wood piling below upper structure; railway track on both sides; pier will form breakwater, protect airplane hangars, etc. (Lately noted to have let contract.)

Md., Aberdeen—Dredging.—Cantonment Division, War Department, Washington, D. C., let contract Maryland Dredging & Contracting Co., Fidelity Bldg., Baltimore, Md., for dredging at proving grounds.

Okla., Commerce—Swimming Pool.—Business Men's Athletic Club will build 100x60-ft. swimming pool 4 to 12 ft. deep.

Tex., Beaumont—Quays.—City postponed date of opening bids from March 5 (date recently stated) to April 2 to construct following work at Kirby's Point: 1000, 750 and 500 ft. of quays, including dredging, removal of old piles, etc.; C. L. Scherer, City Engr.; J. G. Sutton, City Secy. (See Machinery Wanted—Quay Construction.)

Ala., Birmingham—Paving Contractor.—Standard Paving Co. organized with \$20,000 capital; C. D. Weller, Prest.; J. D. Rucker, V.P.; T. M. Porterfield, Secy.-Treas.

Ark., Little Rock—Road and Bridge Contractor.—Southern Road & Bridge Builders, capital \$30,000, chartered; R. M. Tate, Prest.; Jesse Edwards, V.P.; W. C. Barnhardt, Secy.-Treas.

La., New Orleans—Paper Bags.—E. Z. Opener Bag Co., H. E. Westervelt, Prest., South Bend, Ind., will establish plant to manufacture paper bags; purchased site 320x120 ft., with a 5-story and a 4-story factory building and warehouse; reported to expend \$150,000 for improvements, machinery and other equipment; also understood to have ordered machinery; probably manufacture bags from kraft paper which com-

pany produces from pine pulp at mill on Kenilworth Plantation, Braithwaite, La.

La., St. Gabriel—Sugar.—St. Gabriel Sugar Co., capital \$36,000, inceptd.; Alice Beene, Prest.; Frank J. Flacon, V.P.; J. Burton Le Blanc, Secy.-Treas.

Ark., Stuttgart—Grain Elevator.—Stuttgart Flour Mills will erect grain elevator. (See Flour, Feed and Meal Mills.)

Ga., Atlanta—Incinerator.—City will vote May 20 on \$75,000 bonds to install generating plant at crematory. H. N. Hart, Chief of Construction.

Ga., Atlanta—Laundry.—Reliable Laundry Co., authorized capital \$100,000, inceptd. by T. A. Martin, R. C. Thompson and T. C. Perkins.

Ga., Atlanta—General Construction.—Arthur Tufts Co., capital \$150,000, inceptd. by Arthur Tufts, E. A. Stuhman and C. R. Justi.

Ga., Savannah—Turpentine Storage.—Turpentine Tank & Storage Co., Jos. F. O'Brien, Prest., increased capital from \$15,000 to \$30,000; will build additional 5000-bbl. tank.

Ky., Winchester—Laundry.—New Process Laundry Co., capital \$2000, inceptd. by S. P. Waggoner, L. K. Fields and T. C. Rawlings.

Md., Monkton—Grain Elevator.—Monkton Roller Mills, Otis E. McCoy, Prest., Mount Washington, Md., will build grain elevators; reinforced concrete tanks 65x30 ft.

N. C., Asheville.—Glenrock Company, capital \$50,000, inceptd. by J. B. Bradford, B. E. Franklin and O. Winkle.

S. C., Columbia—Dairy.—A. E. Gonzalez, H. S. Watson and Mrs. P. F. Watson, organized company to install milk plant; let contract for machinery to Davis-Watkins Dairy-men's Manufacturing Co., North Chicago, Ill., through Dixie Engineering & Insulating Co., Atlanta, Ga.

S. C., Spartanburg—Laundry.—Troy Laundry, capital \$10,000, inceptd. by Wm. Foer, T. K. Hudgens and L. W. Perrin.

S. C., Spartanburg—Laundry.—Troy Laundry, capital \$10,000, inceptd. by Wm. Foer and others.

Tex., Galveston—Iron and Steel, etc.—Singer Iron & Steel Co., 414 Security Bldg., organized; D. A. Singer, Prest.-Mgr.; Galveston; F. E. Russell, V.P.; Maurice Epstein, Secy.; both of Houston, Tex.; operate at Galveston and Houston; deal in scrap iron, steel and relaying rails; agent for various railway supplies. (Lately noted inceptd., capital \$30,000.)

Va., Chula—Dairy Products.—Italian-American Dairy Products Co., capital \$50,000, inceptd.; Ernest Orsini, Prest., Chula; Natale Casani, Secy., Richmond, Va.

Va., Lynchburg—Dry Cleaning.—Grand Dry Cleaning Co., capital \$50,000, inceptd.; F. E. Turner, Jr., Prest.; Geo. T. Jones, Secy.-Treas.

Va., Newport News—Milk Products.—Sanitary Milk Products Co., capital \$25,000, inceptd.; D. H. Robishaw, Prest.; W. H. L. Kent, Secy.

Va., Norfolk—Steamboat Line.—Norfolk & West Indian Corp., capital \$20,000, chartered; T. S. Southgate, Prest.; Elias Etheridge, Secy.

Va., Roanoke—Dry Cleaning.—Wygals Inc., capital \$15,000, chartered; S. G. Wygal, Prest.; E. C. Wygal, Secy.

W. Va., Charleston—Building Materials.—Pittsburgh Building Co., capital \$25,000, inceptd. by Geo. W. McClintic and others.

W. Va., Charleston—General Contractors.—Mason, Hanger & Coleman, capital \$100,000, inceptd. by H. P. Mason, H. B. Hanger and others.

W. Va., Charleston—Building Contractor.—Pittsburgh Building Co., capital \$25,000, inceptd. by Geo. W. McClintic and others.

Va., Roanoke.—Cleaning—Wygals Inc., capital \$15,000, chartered; S. G. Wygal, Prest.; A. P. Youngberg, V.P.; E. G. Wygal, Secy.

W. Va., Charleston—Building Contractor.—Pittsburgh Building Co., capital \$25,000, inceptd. by Geo. W. McClintic and others.

W. Va., Charleston—Candy.—Magnolia Candy Co., L. L. Johnson, Prest., will establish candy factory; leased building.

La., New Orleans—Paper Bags.—E. Z. Opener Bag Co., H. E. Westervelt, Prest., will erect plant; has let contract.

Ga., Atlanta—Candy.—Selma Candy Factory, will establish candy factory; leased building.

La., New Orleans—Paper Bags.—E. Z. Opener Bag Co., H. E. Westervelt, Prest., will erect plant; has let contract.

Va., Hopewell—Explosives.—E. I. du Pont de Nemours & Co., Wilmington, Del., will construct additional buildings reported to cost \$50,000; has let contracts.

Va., Norfolk—Oxygen Gas.—Linde Air Products Co., 30 E. 71st St., New York, advises Manufacturers ... Building will be 1-story, 125x155 ft., steel frame, fireproof construction; W. C. Hedrick, Construction Co., Dallas, Tex., Contr.; plans by T. W. Goode, E. 42d St.; machinery in stock; daily output

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100,000 cu. ft. oxygen gas. (Previously noted as purchasing site and having plans by company's Engineer Department, etc.)

Va., Richmond—Tobacco.—Larus & Bro. Co. increased capital from \$300,000 to \$450,000.

Va., Richmond—Railway Signal Devices.—Hudson Signal Sales Co., capital \$20,000, incptd.; W. E. Harvey, Prest.; H. E. McCartney, Secy.-Treas.

W. Va., Eccles—Bakery.—J. M. Crouse will re-establish bakery reported burned at loss of \$4000; New River Collieries Co. was owner of burned structure.

MOTOR CARS, GARAGES, TIRES, ETC.

Ark., Little Rock—Automobiles.—United States Auto Co. has plans by John F. Allmand, Little Rock, for garage; fireproof; 2 stories; 100x150 ft.; contain salesroom 40x40 ft., with plate-glass walls in front and 2 sides; storage space 100x10 ft., for stock cars; paint shop, extra parts department and service department, latter 110x100 ft., on second floor; cost \$75,000; later proposes to erect 4-story concrete warehouse on adjoining lot 50x150 ft.

D. C., Washington—Garage.—Bureau Yards and Docks, Navy Department, Washington, D. C., let contract Austin Company, 1311 H St. N. W., Washington, to erect garage for Government machines.

Ga., Atlanta—Fire Department.—City will postpone date of election from March 25 (date recently stated) to May 20 to vote on \$125,000 bonds to motorize fire department. H. N. Hurt, Chief of Construction.

Ga., Atlanta—Garage.—J. W. Goldsmith, Jr., 23 Peachtree St., will occupy 3-story 200x50 ft. brick-construction garage, costing \$50,000; The Flagler Co., Contrs., Atlanta; Mrs. Laura Armstrong, owner of building.

Ky., Livingston—Tires.—Livingston Tire Co., capital \$50,000, incptd. by M. Thompson, Albert Meschendorf and C. B. Raleigh.

Ky., Louisville—Automobiles.—Blake-Pratt Co., capital \$25,000, incptd. by N. Blake, V. L. Pratt and J. C. Glossbrenner.

Ky., Nicholasville—Motor Cars.—Nicholas Motor Car Co. increased capital from \$2000 to \$4500.

Md., Baltimore—Garages.—Aeme Building Co., 517-A Equitable Bldg., will erect block of 60 garages on Park Heights Ave., near Keyworth; 1 story; each 11x18 ft.; brick; fireproof.

Md., Frederick—Farm Tractors.—Automotive Tractor Co., capital \$150,000, organized; Casper E. Cline, Prest.; Thos. E. Kling, Secy.; Geo. F. Smith, Treas.; establish plant to manufacture farm tractors; purchased factory buildings and site on Baltimore & Ohio R. R.; equip with necessary machinery; initial capacity 10 farm tractors daily; machinery partially ordered. (See Machinery Wanted—Punching and Grinding Machinery, etc.)

Miss., Biloxi—Automobiles.—Davis Auto Sales Co., capital \$10,000, incptd. by R. M. Davis, L. R. Powers, U. S. Joachim and others.

Mo., Kansas City—Tractors.—Coleman Tractor Corporation, 613 Grand Ave., organized; F. N. Winslow, Prest.; Geo. A. Metcalf and Godfrey Swenson, V-Ps.; Charles C. Busey, Secy.; let contract to Swenson Construction Co., Kansas City, to erect 50x120-ft. semi-fireproof building; cost \$15,000; has purchased machinery; daily capacity 4 tractors. (Lately noted to erect plant.)

Mo., St. Louis—Garage.—Fred. Oetgen will erect garage; 1 story; cost \$3000; Aug. Winke, Contr., St. Louis.

N. C., Winston-Salem—Garage.—C. M. Thomas Co. will erect garage; fireproof; concrete.

Okl., Gotebo—Tires and Accessories.—Gotebo Tire & Accessory Co., capital \$10,000, incptd. by R. L. Statler, J. M. Reeves and W. R. Patterson.

Okl., McAlester—Automobiles.—Gwin Automobile Co., capital \$5000, incptd. by T. T. Lewis and others.

Okl., Oklahoma City—Automobiles and Tires.—Service Automobile & Tire Co., capital \$100,000, incptd. by Gus Diamond and H. C. McQuaid of Oklahoma City, and W. H. Hedrick of Blackwell, Okla.

Okl., Barnwell—Automobiles.—Hagood Jennings Auto Co., capital \$10,000; chartered; M. B. Hagood, Prest.; W. D. Hurley, V-P.; W. C. Jennings, Secy.-Treas.

S. C., Charleston—Automobiles.—Liberty Motor Co., capital \$10,000, incptd. by Robt. Cohen and Raye Cohen.

Va., Pulaski—Garage.—City Garage will erect addition; 50-ft. frontage.

W. Va., Moundsville—Garage.—Perkins Garage will build 50x32-ft. addition 22 ft. high; Bodley & Phillips, Contrs., Moundsville.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Fla., St. Augustine—Florida East Coast Railway, E. Ben Carter, Chief Engr., will erect (by company force) ordinary-construction 88x100-ft. building, cost \$12,000; plans by J. G. Bonwell. (Lately noted to rebuild paint shop.)

Okla., McAlester.—Missouri, Kansas & Texas Railway, F. Ringer, Chief Engr., Dallas, Tex., contemplated installing 300-ton mechanical coal chute.

Tex., Fort Worth—Missouri, Kansas & Texas Railway, F. Ringer, Chief Engr., Dallas, Tex., will rebuild coal chute reported burned at loss of \$35,000, including 15 box cars.

ROAD AND STREET WORK

D. C., Washington—District Comms. receive bids until March 28 for street grading; 61,800 cu. yds.; proposal forms, etc. on application to Engr., Department, 427 District Bldg. (See Machinery Wanted—Grading.)

Fla., Lake Alfred—City, J. F. Jester, Clerk, asks bids until April 11 to improve streets; 15,000 sq. yds. asphalt concrete paving; 65,000 sq. yds. clay paving; 48,000 cu. yds. excavation; concrete curb and gutters; Engr. J. W. Turner, Lakeland, Fla. (See Machinery Wanted—Paving.)

Fla., Bradenton—Manatee County Commissioners let contract to Finley Method Co., Houston, Tex., to construct 17,000 sq. yds. penetration macadam surface on Fruitville Road, near Sarasota; Engr., Chas. A. Browne, Sarasota, Fla.; \$12,000 available. (Bids noted in February.)

Fla., Bradenton—Manatee County Commissioners, Palmetto Special Road and Bridge District, Wm. M. Taylor, Clerk County Comms., asks bids until April 8 to construct 33 mi. hard-surfaced road, and other structures to complete road, according to revised plans and specifications by C. S. Hill, Engr. Lately noted to have rejected bids. (See Machinery Wanted—Road Construction.)

Fla., Dade City—Pasco County will widen and resurface section of Road No. 5 in District No. 5, between Pinellas County line near Tarpon Springs and New Port Richey; 2 mi.; State Road Department, Wm. F. Cocke, Commr., Tallahassee, Fla., and County Comms. receive bids until April 1. (See Machinery Wanted—Road Construction.)

Fla., Pensacola—City will grade, pave and curb Second St., from Barrancas Ave. to Hyer St.; 2700 sq. yds. pavement and 2200 lin. ft. concrete curbing; bids opened March 13; L. Earle Thornton, City Engr.; Thos. H. Johnson, Commr. of Streets and Public Works.

Ky., Shelbyville—Shelby County Comms. let contract Gormley Bros., Versailles, Ky., to improve State-Aid Road No. 106; 6000 cu. yds. surfacing, concrete head walls and 6 pipe culverts.

La., Crowley—Acadia Parish Police Jury organized road district and will order election to vote on \$350,000 bonds to construct roads.

Md., Baltimore—City will make parkway improvements between St. Paul and Courtland Sts. and Franklin and Lexington Sts.; bids by Board of Awards until April 3 on 20,000 cu. yds. excavation, 950 lin. ft. masonry retaining wall 13 ft. high, with cut-stone balusters and 300 lin. ft. other masonry walls; 5 ornamental stairways and fountains, requiring 15,000 sq. ft. cut-stone and 4000 sq. ft. brick work; 3000 lin. ft. curbing, 50,000 sq. ft. sidewalks; 2000 lin. ft. curbing.

Mo., St. Louis—Garage.—Fred. Oetgen will erect garage; 1 story; cost \$3000; Aug. Winke, Contr., St. Louis.

N. C., Winston-Salem—Garage.—C. M. Thomas Co. will erect garage; fireproof; concrete.

Okl., Gotebo—Tires and Accessories.—Gotebo Tire & Accessory Co., capital \$10,000, incptd. by R. L. Statler, J. M. Reeves and W. R. Patterson.

Okla., McAlester—Automobiles.—Gwin Automobile Co., capital \$5000, incptd. by T. T. Lewis and others.

Okl., Oklahoma City—Automobiles and Tires.—Service Automobile & Tire Co., capital \$100,000, incptd. by Gus Diamond and H. C. McQuaid of Oklahoma City, and W. H. Hedrick of Blackwell, Okla.

S. C., Barnwell—Automobiles.—Hagood Jennings Auto Co., capital \$10,000; chartered; M. B. Hagood, Prest.; W. D. Hurley, V-P.; W. C. Jennings, Secy.-Treas.

S. C., Charleston—Automobiles.—Liberty Motor Co., capital \$10,000, incptd. by Robt. Cohen and Raye Cohen.

Va., Pulaski—Garage.—City Garage will erect addition; 50-ft. frontage.

son Bros. Construction Co., \$7790; Osceola St. to Webb-Kunze Construction Co., \$7685; all of St. Louis. (Lately invited bids.)

Mo., St. Louis—City let contract Frank A. Stiers Co. at \$52,557 and Shrainka Construction Co. at \$34,948 to pave Southwest Ave. with brick; both contractors of St. Louis.

N. C., Concord—Cabarrus County will improve roads; 14,000 sq. yds. pavement; bituminous or other permanent pavement; grading; furnishing and constructing curb and Camp Bowie.

N. C., Nashville—Nash County Comms. will construct Rocky Mount-Whitakers-Battleboro Road estimated to cost \$24,000; R. E. Snowden, District Engr. of State Highway Com., Richmond, will make surveys.

Okla., Drumright—City will contract for 60,000 sq. yds. brick paving; receives bids April 1; W. E. Nicodemus, Mayor. (See Machinery Wanted.)

Tex., Dallas—Dallas County will construct Maple Ave. Road to Love Field Aviation Camp; Chas. E. Gross, County Auditor, receives bids until March 21; J. F. Witt, County Engr., Courthouse, Dallas. (See Machinery Wanted—Road Construction.)

Tex., Fort Worth—War Department, Capt. Dwight Horton, Construction Quartermaster, will expend \$20,000 for improving roads to gutters; County Comms. receive bids until April 3; Anderson & Christie, Consit. Engrs., Charlotte, N. C. (See Machinery Wanted—Road Construction.)

Tex., Fort Worth—Tarrant County Commissioners let contract W. E. Callahan Construction Co., Fort Worth, to resurface 2½ mi. south side Arlington Heights Blvd.; 32,000 sq. yds.; Tarvia treatment, Finley method.

Tex., Groesbeck—Limestone County, Road Dist. No. 11, J. E. Bradley, official in charge, voted \$100,000 bonds for road construction. (Lately noted.)

Tex., Tyler—Smith County, Road District No. 3, will vote on \$10,000 bonds to construct roads. Address County Comms.

Va., Chatham—Pittsylvania County will construct 8 mi. soil road between Chatham and Callands and 1 mi. soil road from Station 200 to Gallilee Church; bids at Clerk's office until April 1; G. P. Coleman, State Highway Commr., Richmond, Va. (See Machinery Wanted—Road Construction.)

W. Va., Kingwood—Preston County Commissioners let contract Spindler Kingwood at \$160,000 and \$250,000 to construct asphalt road in Kingwood District and concrete road in Portland District.

W. Va., St. Albans—City, J. M. Oliver, City Engr., will contract for 13,200 sq. yds. paving and 6000 cu. yds. grading; 13,000 ft. terra-cotta and brick sanitary sewer; 100,000 sq. ft. sidewalk and 2000 cu. yds. excavation; bids until April 13; plans and specifications on file. (See Machinery Wanted—Paving.)

SEWER CONSTRUCTION

La., Bossier City—City issued \$30,000 bonds to construct sewer system and water-works; completed preliminary surveys. Address The Mayor.

N. C., Gastonia—City will construct septic tanks for sewage-disposal; cost \$15,000 to \$20,000. Address The Mayor. (Previously noted as contemplated.)

N. C., Gastonia—City will construct septic tanks for sewage-disposal; cost \$15,000 to \$20,000. Address The Mayor. (Previously noted as contemplated.)

N. C., Williamston—City, W. T. Meadows, Treas., will vote on bonds to construct sewers and water-works.

Tex., For Worth—War Department, Capt. Dwight Horton, Construction Quartermaster, will construct sewer system for Camp Bowie.

Tex., Fort Worth—City contemplates expending \$70,000 to \$100,000 to construct sewer from edge of Camp Bowie through city to point below Paddock Viaduct; F. J. Von Zuben, City Engr.

Va., Alexandria—American Shipbuilding Co., Colon H. Livingstone, Prest., 1249 Kenyon Ave. N. W., Washington, D. C., will construct sewer system for shipyard; Fred. T. Lye & Co., Engr.-Contr., 495 Main St., Springfield, Mass. (Lately noted as engaged in organizing.)

Miss., Pass Christian—Hosiery—F. Andrew's contemplates establishment of mill to manufacture hosiery. (See Machinery Wanted—Knitting Machinery, etc.)

N. C., Boiling Springs—Hosiery—Winner Hosiery Mill Co., capital stock \$10,000, organized; J. W. Wood, Prest.; Ernest White, Secy.; A. B. Holland, Treas.; has frame building; 22 knitting; cost of machinery, \$8000; belt drive; capacity, 300 doz., 24 hr. run. Mr. White lately noted as to establish knitting mill. (See Machinery Wanted—Yarn.)

N. C., Cornelius—Cotton Cloth.—Cornelius Cotton Mill will erect addition and equip with looms for weaving; has let contracts.

Ga., Brunswick—Concrete and Steel Steamships.—Liberty Shipbuilding Co., Matthew Hale, V-P., Boston, Mass.; Max Schoolman, Gen. Mgr. at Brunswick, proposes to build plant for constructing concrete and steel steamships; has contract for 50 Government vessels, contingent on success of initial ship of 3500 tons dead-weight capacity; some of other vessels will be 7500 tons; purchased site on St. Simons Sound; build first ship on Brunswick Marine Construction Corporation ways while Liberty plant is being built. (Supersedes recent item.)

La., New Orleans—Steel Vessels.—Jahneke Ship Building Co. will construct drydock with lifting capacity 8000 tons; build in accordance with Government agreement for Government work.

N. C., Elizabeth City—Steel Ships.—Maritime Engineering Corporation chartered with \$1,250,000 capital; Russell B. Smith, Prest., New York; build plant to construct steel steamships; leased site on Goat Island on Pasquotank River.

N. C., Wilmington—Steel Ships.—Rogers & Hagerty Co., Contr., New York, is reported planning to build shipyard for steel steamships.

Va., Alexandria—Steel Ships.—American Shipbuilding Co., Colon H. Livingstone, Prest., 1249 Kenyon Ave. N. W., Washington, D. C., has final plans and specifications by Frederick T. Ley, Springfield, Mass., for shipbuilding plant at Jones Point; construction will include: 6 shipyards; fabricating shop, 1 story, 212x400 ft.; machine shop, 75x200 ft.; blacksmith shop, 2 stories, 60x125 ft.; joiner shop, 2 stories, 60x125 ft.; tin and coppersmith shop, 1 story, 50x125 ft.; storehouse, 1 story; 75x250 ft.; water and sewer systems; power for 6 shipyards; trackage, etc.; build 9400-ton steel ships; Fred. T. Ley & Co., Inc., Engr.-Contr., 495 Main St., Springfield, Mass. (Lately noted as engaging Fred. T. Ley to prepare plans and specifications; previously noted chartered with \$10,000,000 capital, etc.)

TELEPHONE SYSTEMS

Tex., Electra—Electra Telephone Co. will rebuild telephone exchange reported burned.

TEXTILE MILLS

Ga., Athens—Cotton Cloth.—Southern Mfg. Co., John F. Tibbets, Prest. and Gen. Mgr., will invest \$250,000 to double plant; \$75,000 for buildings and \$175,000 for new machinery; construct buildings covering 1½ acres, 60,000 sq. ft. floor space; 188x100-ft. structure for offices and first-aid rooms, with warehouses; 188x125-ft. addition to No. 2 mill; extend No. 1 mill to 200x50 ft. and add 1 story; enlarge slasher-rooms; 200x25-ft. weaver-shed addition; install 1000 spindles (90 spinning frames), 50 cutting cards, 150 looms, etc.; John Hill, Archt.-Engr., Atlanta, Ga.; W. T. Broxton, Supt. Constr., Athens; purchased building materials.

Ga., Griffin—Hosiery.—Kincaid Knitting Mills, capital \$50,000, J. M. Thomas, Prest., open bids during March to erect 60x120 ft. brick and concrete building; cost \$15,000; Engr.-Archt., W. H. Sears, Chattanooga, Tenn.; install 50 hosiery knitting machines; equipment purchased, cost \$25,000; electric (city) power; capacity of mill 400 doz. per 24 hrs. (Lately noted organized, etc.)

Md., Oella—Woolen Cloth.—Oella Mills will build 4-story 156x92 1-3-ft. main mill, 4-story 135x60-ft. finishing mill, 5-story 103x60-ft. dye-house and storage building; 47x29-ft. boiler-house; slow-burning brick, steel and wood construction, except 103x60-ft. structure, which will be of reinforced concrete; cost \$280,000; install 3900 spindles, 60 looms, electric-power drive, etc., costing \$225,000; electric equipment for 380 H. P. will cost \$16,000; daily capacity, 3000 yds. woolen cloth for army; all machinery ordered; Chas. J. Main, Archt.-Engr., 201 Devonshire St., Boston. (Lately noted to build burned plant, Chas. J. Main to prepare plans, etc.)

Miss., Pass Christian—Hosiery.—F. Andrew's contemplates establishment of mill to manufacture hosiery. (See Machinery Wanted—Knitting Machinery, etc.)

N. C., Boiling Springs—Hosiery.—Winner Hosiery Mill Co., capital stock \$10,000, organized; J. W. Wood, Prest.; Ernest White, Secy.; A. B. Holland, Treas.; has frame building; 22 knitting; cost of machinery, \$8000; belt drive; capacity, 300 doz., 24 hr. run. Mr. White lately noted as to establish knitting mill. (See Machinery Wanted—Yarn.)

N. C., Cornelius—Cotton Cloth.—Cornelius Cotton Mill will erect addition and equip with looms for weaving; has let contracts.

N. C., Durham—Hosiery.—Durham Hosiery Mills will build additions; purchased site at \$60,000.

N. C., Forest City—Hosiery Yarns.—Alexander Mfg. Co. organized with \$200,000 capital; J. F. Alexander, Pres.; L. V. Lee, V.-P.; J. R. Moore, Secy.-Treas.; build 23x81-ft. mill of brick construction; install 10,000 spindles, electric-power drive, etc., to spin hosiery yarns; R. C. Biberstein, Archt.-Engr., Charlotte, N. C. (Previously noted organized to establish mill.)

N. C., Gastonia—Hosiery.—Clyde Armstrong and D. M. Jones plan to build hosiery knitting mill.

N. C., Graham—Knit Tubing.—White Cotton Co., capital stock \$5000, organized; W. E. White, Pres.; S. S. Holt, Secy.-Treas.; rent building; install 50 knitting machines; electric drive. (Noted in Feb.)

N. C., Landis—Cotton Yarn.—Corriher Mills Co. will add 2000 spindles; has let contract.

N. C., Landis—Cotton Yarn.—Linn Mills Co. increased capital from \$100,000 to \$250,000; build additional mill; install 6000 spindles, etc.; ordered machinery.

N. C., Norwood—Cotton Yarns.—Norwood Mfg. Co., J. F. Shinn, Mgr., will erect 75x100-ft. addition and install machinery to eliminate night operation; placed all contracts.

N. C., Pineville—Cotton Sheeting.—Chadwick-Hoskins Co., Charlotte, will build addition; install 10 cards, 2 drawings, picker, etc.

N. C., Winston-Salem—Woolen Products.—Chatham Mfg. Co. increased capital from \$350,000 to \$2,000,000.

WATER-WORKS

Ark., Eureka Springs.—City Comms. will install oil-burning pumping plant for water-works; cost \$12,000; purchased equipment.

Ark., Harrison.—City, R. M. Fellows, Mayor, issued \$11,000 bonds for water-works and \$15,000 city warrants.

Ga., Atlanta.—City will postpone date of election from Mar. 25 (date recently stated) to May 20 to vote on \$500,000 bonds to improve water-works; H. N. Hurt, Ch. of Constr.

Ga., Ty Ty.—City, J. B. Hollingsworth, Clerk, voted \$2500 bonds to extend water-works, construct reservoir, etc. (Noted in February.)

La., Bossier City.—City issued \$30,000 bonds to construct water-works and sewer system; completed preliminary surveys; drill wells for water supply; elevated tank for fire protection. Address The Mayor.

Md., Baltimore.—City will install centrifugal pump of 37,500 gals. per minute capacity at Lake Montebello filtration plant; increase capacity of filtration plant to 200,000,000 gals. water daily; \$12,000 appropriation available; bids until March 27; Walter E. Lee, Water Engr. (See Machinery Wanted—Pump.)

Md., Myersville.—City plans to construct water-works. Address The Mayor.

Miss., Meridian.—City voted \$100,000 bonds to purchase land on water shed and improve water-works, including betterment of filtration system. J. M. Dabney, Mayor. (Lately noted to vote.)

Mo., Kansas City.—City is having plans prepared for pumping plant at East Bottoms to be duplicate of Turkey Creek plant; Burton Lowther, Chief Engr. (Lately noted to vote April 2 on \$1,250,000 bonds to improve water-works.)

N. C., Gastonia.—City will construct water mains to camp site for artillery range. Ad. Mayor. (Noted in February as to vote.)

N. C., Williamson.—City, W. T. Meadows, Treas., will vote on bonds to construct water-works and sewers.

Ola., Shattuck.—City, A. C. Oliver, Mayor, will expend \$45,000 on water-works construction; capacity 200,000 gals.; install new mains, well, hydrants and pumps; date of opening construction bids not set; Engrs., Burns & McDonnell, Kansas City, Mo. Lately noted. (See Machinery Wanted—Water-works Equipment.)

Tex., Point Isabel.—Bureau Yards and Docks, Washington, D. C., will erect distilling plant; frame building, steel tower with 2 steel water tanks, terra-cotta and cast-iron intake pipe line, distributing pipe lines for salt and distilled water, surface well and pump for seawater at Naval Radio Station. (See Machinery Wanted—Distilling Plant.)

Va., Alexandria.—American Shipbuilding Co., Collin H. Livingstone, Prest., 1249 Kenyon Ave., N. W., Washington, D. C., will construct water-works for shipyard; Fred T.

Lye & Co., Engr.-Contr., 495 Main St., Springfield, Mass. (See Shipbuilding Plants.)

WOODWORKING PLANTS

Ala., Morris—Cooperage.—Cape Cooperage Co., Wm. Pearce, Supt., will rebuild cooperage plant reported burned at loss of \$5000.

Ala., Troy—Staves.—R. D. Foley will rebuild stave mill reported burned at loss of \$15,000.

Ark., Arkadelphia—Poles, Shafts, etc.—Pioneer Pole & Shaft Co., Ebin Eggleheart, Mgr., will bu'd plant at Open Banks on Ouachita River, 9 mi. from Arkadelphia.

Ark., Wrightsville.—T. A. Byrd will rebuild shingle mill reported burned at loss of \$5000.

Ga., Atlanta—Novelties.—Woodcraft Co., capital \$100,000, incptd. by J. C. Williams, Guy King and T. Flager.

Ga., Atlanta—Wagons.—Mrs. H. T. Cooper will build 1-story 90x50-ft. wagon shop; mill construction; awarded contract.

Ky., Lexington—Barrels.—Lucas E. Moore Co., New Orleans and New York, plums establisht branch factory for barrels.

Ky., Louisville—Tables.—Voss Table Co. will repair fire damage at 16th and Arbogast Sts.; cost \$3000.

La., Cedar Grove—Staves.—Caddo Stave Co. organized; G. M. Hampton, Prest.; W. R. Hampton, V.-P.; both of Fordyce, Ark.; R. G. Brown, Secy.-Mgr., Shreveport, La.; has plant with daily capacity 25,000 tight barrel staves; purchased plant of Hampton Stave Co. of Fordyce, and increased equipment. (Under La., Shreveport, lately noted organized, capital \$40,000.)

Md., Hagerstown—Spokes, Rims, etc.—Cumberland Valley Spoke & Bending Co. will rebuild \$50,000 plant reported burned.

Miss., Leland—Staves.—Miller Stave Co., capital \$20,000, incptd. by R. J. Wiggs, F. C. Woods, C. E. Robbs and others.

Mo., St. Louis—Boxes, etc.—Consumers' Basket & Box Co. incptd. with \$30,000 capital by E. O. Miller, Jno. Schulze, Edw. H. Schlapf and others.

N. C., Chadburn—Furniture and Caskets.—John H. Land is interested in proposed installation of machinery to manufacture furniture and caskets. (See Machinery Wanted—Workingworking Machinery, Etc.)

N. C., Roanoke Rapids—Furniture.—Virginia-Carolina Furniture Co., capital \$25,000, incptd. by J. W. House and W. S. Hancock of Roanoke Rapids, and J. F. Vincent of Garysburg, N. C.

North Carolina—Wood Products.—Carolina Wood Products Co., capital \$100,000, incptd. by H. E. Ringholm, H. F. Rhatigan, both of Brooklyn, N. Y., and Francis B. Hamlin, New York.

Tenn., Halls—Elm Hoops.—Halls Hoop Mill Incptd., capital \$16,000; G. W. Bagby, Prest.-Mgr.; S. E. Field, V.-P.; R. E. Gibbons, Secy.; purchased mill; daily output, 45,000 coiled elm hoops.

W. Va., Richwood—Treenails.—R. E. Eskridge contemplates manufacture of locust treenails. (See Machinery Wanted—Woodworking Machinery.)

FIRE DAMAGE

Ala., Anniston.—Woodstock Operating Corporation's supply-house, laboratory, machine shop and blacksmith shop; loss several thousand dollars.

Ala., Avondale (P. O. Birmingham).—E. W. Moore's dwelling; loss \$6000.

Ala., Birmingham.—School at Chalkville; N. R. Baker, County Supt. of Education.

Ala., Brierfield.—C. G. Smith's dwelling near Brerfield.

Ala., Eufaula.—Eufaula Cotton Oil Co.'s plant; loss \$75,000.

Ala., Ozark.—City School. Address School Trustees.

Ala., Morris.—Cape Cooperage Co.'s plant; loss \$5000; Wm. Pearce, Supt.

Ala., Ozark.—W. L. Casey's building.

Ala., Sylacauga.—Smith Bros.' business block; loss \$40,000.

Ark., Paris.—Methodist Church, loss \$15,000 (address The Pastor); Bennett Hotel, loss \$6000.

Ala., Roninoke.—Building occupied by T. L. Belcher & Co.'s stock barn, Dr. W. J. Horton's veterinary office and E. O. Kitchens' pressing club.

Ark., Tilar.—Prewitt Bros.' store; loss \$15,000.

Ala., Troy.—R. D. Foley's stave mill; loss \$15,000.

Ala., Troy.—W. B. Folmar & Sons' warehouse; loss \$5000.

Ark., Wrightsville.—T. A. Byrd's shingle mill; loss \$5000.

Fla., Helen.—Helen Lumber Co.'s planing mill, 3 dry kilns, water tank, fuelhouse and 750,000 ft. lumber; total loss \$75,000.

Fla., Passagirille.—Lizotte Hotel, owned by George Lizotte, loss, including furnishings, \$26,000; J. J. Duffy's building, loss \$3000; Girard Bldg., owned by Mrs. J. E. Girard and others, loss \$2000.

Fla., Vero.—G. F. Howard's saw mill.

Fla., Williston.—Long Pasley Lumber Co.'s mill; loss \$30,000.

Ga., Buford.—Stores of L. I. Perry, Carl Perry, W. H. Hutchins, Haynes & Merritt, A. E. Liles, Al. Thomas, L. N. Rowe.

Ga., Eatonton.—R. R. Beck's residence.

Ga., Macon.—Dr. N. G. Gewinner's residence.

Ga., Macon.—T. L. Bates' residence, 1308 Third St.; Mrs. J. T. Walton's residence, 1310 Third St.; O. O. Osburn's residence; J. F. Edwards' residence, owned by S. L. Taylor; 5 dwellings owned by H. M. Wortham.

Ky., Glasgow.—Louisville & Nashville R. R.'s freight depot, freight warehouse, engine-house and 7 freight cars; loss \$300,000; W. H. Courtenay, Ch. Engr., Louisville, Ky.

Ky., Hickman.—C. T. Bonduant's cotton gin; loss \$20,000.

Ky., Hopkinsville.—Residence of Bailey Russell, Cashier of First National Bank; loss \$4000.

Ky., Lexington.—Nelson Hemp Storage House, owned by W. B. Nelson; estimated loss \$25,000.

Ky., Mt. Sterling.—Willis G. Henry's residence near Mt. Sterling; loss \$4000.

Ky., Winchester.—Winchester Lumber & Mfg. Co.'s manufacturing building, 3 dry kilns and lumber.

Ky., Winchester.—Luman Bldg., occupied by French Hardware Store, Navarra Fruit Stand, French Tobacco Co. and others; loss \$20,000.

Md., Adamstown.—Adamstown Canning & Supply Co.'s cannery; J. Franklin Thomas, Prest.; loss \$100,000.

Md., Elkton.—Edward Spear, Jr.'s mansion house on Wooleyhan farm; loss \$3000.

Md., Hagerstown.—Cumberland Valley Spoke & Bending Co.'s factory; loss \$50,000.

Md., Hyattsville.—Fred. A. Holroyd's residence.

Md., Millington.—Mrs. Kate Tonkin's double store, loss \$3500; H. M. Hynson's drug store, owned by Dr. Julian T. Power, loss \$20,000; T. D. Seaffer's bakery, loss \$4000; Chas. M. Hurlt's store, loss \$15,000 to \$20,000; Mrs. Sarah C. Harris' dwelling and store, loss \$2500; C. P. Jones' dwelling and store, loss \$2500; Dr. D. Moore's dwelling, loss \$1800.

Md., Newmarket.—Methodist Church (address The Pastor); residences of Charles Utz, Theodore Stevens, Ernest Boyer and James Kelly; loss \$10,000.

Miss., Grenada.—W. L. Hamby's grist mill, sawmill, dwelling, store and barn.

Miss., Greenwood.—Tallahatchie Compress & Storage Co.'s cotton sheds.

Mo., Jefferson City.—Cole County Court-house, loss \$60,000, J. G. Slate, Judge; Grace Episcopal Church (address The Pastor).

N. C., Charlotte.—J. B. Ivey's department store; loss \$8000.

N. C., Charlotte.—Warehouse owned by Jasper C. Cathey and Charles Cathey; loss \$5000.

N. C., Huntersville.—J. T. Cashion's residence near Gilead.

N. C., Mangum.—Claudius Dockery's residence.

N. C., Marshall.—High School; loss \$12,000. Address The Mayor.

N. C., Salisbury.—James Godby's dwelling near Salisbury.

Okla., Chickasha.—Baptist Church, First and Dakota Ave.; loss \$3000. Address The Pastor.

Okla., Picher.—Roy Martin's rooming house; R. C. Morris' residence; loss \$6000.

Okla., Sentinel—Dwellings of J. P. Tatum and S. H. Cobean.

S. C., Anderson.—Wm. Menefield's store; loss \$12,000.

S. C., Greenville.—Eagle Roller Mills; loss \$25,000.

S. C., St. Stephens.—G. Rittenberg's building; stores of J. M. Jerningham, M. A. Floyd, C. T. Shuler; dwellings of J. H. Keiler, S. Sanders, L. L. David; E. K. Bunch's meat market and blacksmith shop, and other buildings; total loss \$100,000.

Tenn., Greenfield.—First Baptist Church. Address The Pastor.

Tenn., Medina.—Farmers' Union Store; T. B. Harris' store; Fruit Growers' Association Hall; Dr. J. A. Keaton's office; postoffice; loss \$15,000.

Tenn., Memphis.—J. L. Meese Co.'s tenant-house and seedhouse; loss \$12,000.

Tenn., Smithville.—Foster Bros.' store, loss \$2000; Please C. Crowley's building, loss \$1500; J. T. Burch's store, loss \$3500.

Tenn., Winchester.—S. A. Shore's residence.

Tex., Electra.—Electra Telephone Co.'s exchange.

Tex., Emory.—Tackett & Allen's building, loss \$8000; O. H. Rhodes' building; loss \$3500.

Tex., Fort Worth.—Missouri, Kansas & Texas Railway's coal chute and 15 box cars; loss \$35,000; F. Ringler, Chief Engr., Dallas, Tex.

Tex., Laredo.—Eckols & Edwards' store.

Tex., New Braunfels.—Wm. Helmke's residence near New Braunfels; loss \$5000.

Tex., Rockdale.—O. K. Phillips' residence, loss \$10,000; residences of Mrs. E. C. Simms, Mrs. B. B. Baxter, Miss Nannie Broadnax, E. D. Phillips, Joe Lee and W. A. Bishop; Episcopal Church (address The Rector).

Tex., San Angelo.—A. B. Vandyke's bowling alley; Eagles Hall and Crystal Theater.

Tex., Sherman.—A. Becker's boarding house and cottage; loss \$6500.

Va., Derby.—Postoffice and 5 other buildings.

Va., Hampton Roads.—Massachusetts Building at Hampton Roads Naval Base.

Va., Harrisonburg.—Gratian Landes' residence.

Va., Highland Springs.—R. C. Burnett's residence; loss \$3000.

Va., Marshall.—J. W. Russell's store; postoffice building; residences of D. Gill and Lawrence Perrell.

Va., Midlothian.—Mrs. Earl Mitchell's residence; loss \$7000.

Va., Norfolk.—D. Mervis' store and residence.

W. Va., Cass.—Pocahontas Supply Co.'s store; postoffice.

W. Va., Eccles.—J. M. Crouse's bakery; building was owned by New River Collieries Co.; loss \$4000.

W. Va., Keystone.—C. E. Harman's 5 dwellings; I. L. Shor's dwelling.

W. Va., Logmont.—Lower Hignite Coal Mining Co.'s commissary and office building; loss \$7500.

COLLAPSED

Ky., Winchester.—Pastime Theater.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ala., Florence.—W. L. Reeder will erect hotel and apartment-house; 3 stories.

D. C., Washington.—Howard Etchison will erect apartment-house, 3121 Mt. Pleasant St.; cost \$40,000.

Fla., Miami.—C. N. Eaton, Royal Palm Hotel, purchased Webster baths building at Fort Dallas Park, and will remodel for apartment-house; structure reinforced concrete; 2 stories and basement.

Fia., Miami.—The Bliss Properties, Inc., 303 13th St., has plans by E. A. Nolan, Avenue C, Miami, for apartment-house; 134x114 ft.; concrete and hollow tile; pine or maple floors; electric lights; Otis electric freight elevator; cost about \$100,000; bids opened March 16. Address architect. (Lately noted.)

Ga., Atlanta.—A. N. Canton will erect apartment-house at 48 Juniper St.; 3 stories; brick; 12 two to six-room suites; cost \$25,000.

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MANUFACTURERS RECORD.

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La., Lake Charles.—Gayle Apartments, Inc., chartered with \$60,000 capital; Edwin F. Gayle, Pres.; Julius Frank, V.-P.; Chas. T. Gayle, Secy.-Treas.; will erect apartment-house at Broad and Hodges Sts.; 3 stories; frontage 176 ft.; 24 suites.

Mo., Joplin.—Ralph P. Camp, Springfield, will erect 2 apartment buildings of 18 apartments each in conjunction with Farm & Home Savings Land Association of which J. Ridgeway is Mgr.; 42x150 ft.; 3 stories; vacuum steam heat; ventilating system; buildings separated by 18-ft. parkway.

Mo., Kansas City.—John A. Miller will erect store and flat building. (See Stores.)

N. C., Durham.—W. D. Hester has plans by H. C. Linthicum, Durham, for apartment-house on W. Main St.; 48x278 ft.; Denison hollow interlocking tile; slag, Barrett specification roof; hardwood floors; city electric lights; cost \$70,000; vapor heat, about \$6000; bids opened Apr. 15. Address architect. (Lately noted.)

Okla., Miami.—Mrs. Coons has plans and is receiving bids to erect apartment-house at B and Second Sts.; 3 stories and basement; 36 rooms; concrete foundation; brick; stone trim; composition roof.

Okla., Tulsa.—J. D. Hinton will erect apartment-house; cost \$3000.

Okla., Tulsa.—Theodore Anderson will erect store building; apartments above. (See Stores.)

Tex., San Antonio.—Paulo Rice will erect 8-room apartment-house; cost \$7500.

ASSOCIATION AND FRATERNAL

Ga., Atlanta.—American Red Cross Association, Washington, D. C., will erect convalescent house at Camp Gordon.

N. C., Charlotte.—Chadwick-Hoskins Co. will erect 2 buildings for Y. M. C. A. at Chadwick-Hoskins and Belmont mills; materials purchased; construction by owner.

Okla., Muskogee.—Lodge No. 38, I. O. O. F., 42 W. Okmulgee St., will improve building.

Va., Hopewell.—Hopewell Lodge, Loyal Order of Moose, plans to erect hotel, theater and lodge building.

Va., Fort Berry.—Knights of Columbus, 606 E St. N. W., Washington, D. C., will establish bungalow colony on property of Columbus Country Club; cost about \$35,000. (See Dwellings.)

BANK AND OFFICE

La., Alexandria.—A. B. Pendleton will erect office and store building; brick, concrete and steel; cost about \$125,000. (See Stores.)

Mo., St. Louis.—Mercantile Library Association will remodel office building; cost \$2000.

Okla., Miami.—Mrs. Jessie A. Brown is receiving bids to erect store and office building; 3 stories; brick and stone; cost \$25,000; Griffth & Son, Archts., Miami. (See Stores.)

Okla., Tulsa.—Trimble will erect office building; cost \$2000.

S. C., Anderson.—Sullivan Hardware Co. has plans by Casey & Fant, Anderson, for remodeling building adjoining present structure for offices; 25x75 ft.; cost \$5000.

Tenn., Knoxville.—Southern Express Co. leased building owned by Mrs. John K. Shields; structure will be remodeled to accommodate offices and freight rooms for both Southern and Adams Express companies.

Tenn., Troy.—Citizens' Bank will erect building; 22x60 or 65 ft.; brick; roofing not decided; probably concrete floors; cost \$2500 or \$3000. Address Dr. W. F. Roberts. (See Machinery Wanted—Building Materials.)

Tenn., Hereford.—First State Bank & Trust Co. will erect bank and office building; cost \$50,000.

Tex., Orange.—First National Bank has plans by C. H. Page & Bro., Austin, for lately-noted improvements to bank building; plans include new brick wall 2 stories, 80 ft. long; structure 80x50 ft.; either install new fixtures or extend present fixtures; concrete, marbleloid and tile floors; steam heating plant; new vault 15x18 ft., 18 ft. high, ceiling in same at 9 ft.; double vault for storage safety deposit boxes, etc.; lower floor banking quarters; upper floor offices; bids opened March 27. Address architects.

Tex., Paris.—Southland Cotton Oil Co. has plans by C. S. Curtis, Paris, for office building; 44x60 ft.; mill construction; tar and gravel roof; joist floors; gravity steam heat; cost \$14,000. Address architect. (See Machinery Wanted—Terra Cotta; Heating Plant; Steel; Brick.)

CHURCHES

Ala., Acipico.—Methodist Church, Rev. C. S. Marable, Pastor, will erect building.

Ala., Mobile.—Seventh Day Adventist Church will erect building. Address The Pastor.

Ark., Paris.—Methodist Church will erect building to replace structure noted damaged by fire at loss of \$15,000. Address The Pastor.

Fla., Miami.—First Christian Church, Rev. Ira E. Adams, Pastor, will complete building; install heating system, stained-glass windows, new furniture, etc.

Fla., La Grange.—Methodist Church will erect building; brick; cost \$12,000. Address The Pastor.

La., Leesville.—Methodist Church will erect building; brick; cost \$12,000. Address The Pastor.

Mo., Alexandria.—First Christian Church has plans by C. B. Tuttle, 710 Railway Exchange Bldg., St. Louis, for building; 2 stories; 90x100 ft.; brick, stone and terra cotta; cost about \$75,000. (Lately noted.)

N. C., Gastonia.—East Baptist Church has plans by E. B. Hogan, Gastonia, for building; 50x75 ft.; brick; slate roof; wood floors; cost \$11,000; heating \$350; bids opened. Address W. L. Walters, Gastonia.

Okla., Pawnee.—Christian Church has plans by Fred. Uhl, Pawnee, for building; 46x90 ft.; brick and stone; tin roof; wood floors; furnace heat; cost about \$12,500; bids opened about April 1; construction begins about April 10. Address A. W. Johnson, Box 278, Pawnee. (Lately noted.)

Okla., Tulsa.—First Baptist Church, C. J. Jefferson, Secy., 823 E. First St., has plans by W. A. Rayfield & Co., Birmingham, Ala., for building on Main St.; 50x100 ft.; ordinary construction; asbestos roof; incline pine floors; electric lights; cost \$20,000; steam heat, \$800; bids opened May 1; construction begins May 15. Address architects.

S. C., Columbia.—Main Street Methodist Church, Rev. J. C. Roper, Pastor, will erect building; cost about \$25,000.

S. C., Saint George.—Methodist Church will erect tabernacle; 400x125 ft.; cost \$2000.

Va., Fort Berry.—Knights of Columbus, 606 E St. N. W., Washington, D. C., will establish bungalow colony on property of Columbus Country Club; cost about \$35,000. (See Dwellings.)

Tenn., Memphis.—Temple Baptist Church will erect building. Address The Pastor.

Tex., El Paso.—S. M. Harvey is Chrnn. of Committee to erect tabernacle; 400x125 ft.; cost \$2000.

Tex., Fort Worth.—First Presbyterian Church, 5th and Taylor Sts., will erect Sunday-school addition; cost about \$50,000. Address The Pastor. (Previously noted.)

W. Va., Lauckport (R. D. from Parkersburg).—Methodist Episcopal Church will erect building; 50x70 ft.; brick; imitation slate roof; cost \$8500; Sam Deem, Archt., R. 3, Parkersburg; construction begins Apr. 1. Address T. E. Maness, R. 3, Parkersburg.

CITY AND COUNTY

Ga., Athens.—Barracks.—Commls. of Roads and Revenues of Clarke County have plans by C. M. Strahan, Athens, for barracks for housing convicts; 22x18 ft.; 2 stories; reinforced concrete; tar and gravel roof; reinforced concrete floors; 700 ft. radiation and boilers; city electric lights; construction by county force; estimated cost of raw material about \$5000; material bids opened April 2. Address architect. (Lately noted.)

Ga., Atlanta.—Cyclorama.—City is considering postponement of election on \$100,000 bonds to erect cyclorama and museum building from March 25 to May 20; Asa G. Candler, Mayor. (Lately noted.)

La., Monroe.—Warehouse.—City will erect warehouse on river; 40x80 ft.; iron construction; wood floors; cost \$7500; bids opened March 20. Address H. O. Morrison, City Engr. (See Warehouses.)

Md., Baltimore.—Bathhouses.—Board of Awards rejected all bids to erect 2 bathhouses in Clifton Park; wood frame; will construct by force of Park Commls.; plans include \$8000 locker system. (Lately noted.)

Mo., Joplin.—City Hall, etc.—City votes April 2 on \$20,000 bonds to erect city building; \$16,000 bonds to rebuild market-house for city office; \$40,000 bonds to purchase site, remodel buildings and erect detention home and city hospital; plans by A. C. Michaelis, Joplin, for remodeling market-house include rebuilding of lower floor, installation of double vaults, concrete construction, gravel roof, concrete floors; J. F. Lee, Commls.

Public Properties and Public Utilities. (Previously noted in part.)

N. C., Durham.—Library.—City will erect Carnegie Library; cost \$40,000. Address The Mayor.

Okla., Muskogee.—Fair.—City is considering plans by C. W. Dawson, Muskogee, for remodeling Free State fairgrounds for which \$100,000 was lately noted voted; having plans prepared by Henry O. Valeur, Phoenix Bldg., Muskogee, for grandstand; plans also include agricultural building, livestock barns, etc.

Okla., Tulsa.—Market.—City has plans by Frank Gibson, Tulsa, for alterations and additions to municipal market; 10 additional stalls; concrete construction.

S. C., Laurens.—Jail.—Laurens County Jail Commission is considering plans for jail; \$35,000 available.

Tex., Eagle Pass.—City Hall, etc.—City will erect city hall, market-house and police and fire station. Address The Mayor.

Tex., Pecos.—City Hall and Fire Station.—City indefinitely postponed erecting building for city hall and fire station; 60x40 ft.; brick and tile; gravel roof; cement floors; cost \$5000; E. B. Kiser, Archt., Pecos. (Previously noted.)

W. Va., Bluefield.—City Hall and Market-house.—City is considering issuing bonds to erect city hall and market-house. Address The Mayor.

W. Va., Morgantown.—Home.—Monongalia County Commls. will remodel dwelling near Sunnyside Bridge for juvenile detention home.

COURTHOUSES

Miss., Magnolia.—Supervisors of Pike County, C. H. Brumfield, Chancery Clerk, receives bids until April 1 to erect addition to courthouse; plans and specifications at office Xavier A. Kramer, Archt., Magnolia, and Chancery Clerk.

Mo., Jefferson City.—Cole County Commls. will probably rebuild courthouse noted damaged by fire at loss of \$60,000; J. G. Slate, Judge.

DWELLINGS

Ala., Bessemer.—C. L. Odell has plans by H. D. Breeding, Birmingham, for residence; 6 rooms, bath, pantry and hall; frame foundation; first story brick; Vulcanite roofing; Southern yellow pine floors; flues and chimneys; cost about \$3000; construction by owner who may be addressed. (Lately noted.)

Ark., Little Rock.—W. R. Benningfield will expend \$3000 to repair residence.

Ark., Sherrill.—Lee M. Quattlebaum will erect 2-story brick-veneer residence.

Ark., Texarkana.—James Porter Huddleston will erect 2-story 7-room brick-veneer residence.

Ark., Texarkana.—Mrs. J. B. Reynolds will erect residence.

D. C., Washington.—Clarence H. Small will erect dwelling; 2839-41 Connecticut Ave.; stone and brick; 10 rooms and 3 baths; garage; cost \$23,000.

D. C., Washington.—Jno. L. Knopp, 1929 Jackson St. N. W., will erect dwelling; cost \$6000.

D. C., Washington.—D. J. Dunigan, 203 Bond Bldg., will erect dwellings, 300-30 Taylor St. N. W.; cost \$6000.

D. C., Washington.—Louis Perna will remodel store and dwelling. (See Stores.)

D. C., Washington.—Thrift Building Co., 709 Union Trust Bldg., will erect dwelling, 3704 Keokuk St. N. W.; cost \$2700.

D. C., Washington.—Harry A. Kite, 1338 G St. N. W., will erect 4 dwellings at 1744-50 2d St. N. W.; 18x36 ft.; brick; slate roof; wood floors; hot-water heat; electric lighting; cost \$2500 each; construction by owner who may be addressed. (Lately noted.)

D. C., Washington.—Chas. L. Tankersley, 1886 Monroe St. N. W., has plans by W. Edgar Howser, 37 New York Ave. N. E., Washington, for dwellings at 4615-27 Georgia Ave. N. W.; 21x34 ft.; 6 and 8 rooms; brick; tin and slate roof; pine and oak floors; cost about \$3500 each; hot-water heat, electric lighting; cost \$2500 each; construction by owner who may be addressed. (Lately noted.)

Fla., Daytona.—Max Winch, Providence, R. I., will erect residence.

Fla., Delray.—S. D. Zeh will erect dwelling.

Fla., Delray.—R. T. Fryer will erect residence.

Fla., Jacksonville.—S. Schoops will erect 2-story frame dwelling; also frame garage; cost \$11,500.

Fla., Miami.—B. F. Tobin, Prest. of Continental Motors Corp., New York, has plans by W. C. De Garmo, Miami, for residence; concrete and tile; estimated cost \$70,000; Alexander Middlemas, Miami, will superintend construction.

Fla., Miami.—W. J. Myers, Springfield, O., is reported to erect residence.

Fla., Miami.—John Morgan, Pittsburgh, Pa., is reported to erect dwelling.

Fla., Miami.—F. W. Schwertley will erect \$5000 residence.

Fla., Miami.—Arthur Byrne will erect dwelling; cost \$2000.

Fla., Miami.—Chas. Briggs, Haverhill, Mass., is reported to erect residence.

Fla., St. Petersburg.—L. D. Gleason, Driftwood, Fla., will erect residence; Dutch colonial style; 150x168 ft.

Ga., Atlanta.—H. B. Shumpert will erect two 1-story brick dwellings, 90 and 96 Willard St.; cost \$3750 each.

Ga., Atlanta.—W. H. Burns will erect 2-story brick dwelling, 526 Decatur St.; cost \$7000.

Ga., Atlanta.—A. S. Barber will erect 2-story brick residence.

Ga., Macon.—H. M. Wortham will rebuild residences noted damaged by fire.

Ga., Macon.—Odom Realty Co. will erect six 6-room bungalows on Napier Ave.; concrete; composition roofs; pine hardwood and tile floors; open grates; electric lights; cement sidewalks; cost \$3500 each; plans and construction by owner.

Ga., Macon.—S. L. Taylor will erect dwelling to replace building noted damaged by fire.

Ga., Oscilla.—S. R. Sikes will remodel residence.

Ky., Louisville.—Tiyume Improvement Co. will erect brick-veneer residence; cost \$4000.

La., Morgan City.—M. Blum has plans by W. D. Corbin, Morgan City, for lately-noted dwelling; 2 stories; 30x55 ft.; frame; shingle roof; cost \$4500; construction begins April 15 under supervision of owner who may be addressed. (See Machinery Wanted—Plumbing Fixtures; Pergolas; Electric Fixtures; House Furnishings.)

Md., Baltimore.—Geo. R. Morris, 533 Title Bldg., will erect three 2½-story brick dwellings, 915-17-19 Canterbury Road; cost \$21,000.

Md., Hamilton.—Geo. L. Gaines, 620 Glenwood Ave., Govans, Md., will erect residence on Goodwood Road, near Raymore Ave.; 25x35 ft.; frame; asphalt roof; wood floors; cost, including site, \$3500; pipeless furnace, (Lately noted.)

Md., Indian Head.—Navy Department, Washington, D. C., will erect 7 cottages.

Mo., Kansas City.—J. H. Wood will erect three 2-story frame dwellings; cost \$4800.

Mo., Kansas City.—James Rudge will erect 2-story brick-veneer dwelling; cost \$3000.

Mo., Kansas City.—W. A. Rupe will erect 5 dwellings; 1 story; stucco veneer; cost \$3000.

Mo., St. Louis.—W. K. Richardson will erect 2-story dwelling; cost \$2500.

Mo., St. Louis.—G. A. Sundquist will erect 2-story dwellings; cost \$15,000.

N. C., Charlotte.—Will Well will erect residence in Myers Park.

N. C., Charlotte.—D. M. Young will repair and erect additional room to dwelling; cost \$2000.

N. C., Durham.—Dr. N. Rosenstein will erect several dwellings.

Okl., Oklahoma City.—Aurelius Swanson will erect two 2-story frame, one 2-story brick-veneer, one 2-story stucco and one 1-story frame residences on Classen Blvd.; 2-story frame residence on West 30th St.; 2-story frame residence on West 40th St.; 2-story frame residence on Butler Ave.; total cost \$65,000.

Okl., Oklahoma City.—J. A. Edwing will erect two 1-story frame dwellings at 1517 W. 33d St. and 1448 W. 26th St.; cost \$5000.

Okl., Oklahoma City.—John E. Donnell will erect 1-story frame dwelling; cost \$2500.

Okl., Tulsa.—D. H. Bolt will erect \$2000 dwelling.

Okl., Tulsa.—E. F. Hammon will erect dwelling; cost \$4000.

Okl., Tulsa.—Hamm Lumber Co. will erect \$5000 dwelling.

Okl., Tulsa.—W. E. Anderson will erect \$2000 residence.

Okl., Tulsa.—Geo. S. Hoagland will erect \$15,000 residence and garage.

Okl., Tulsa.—J. E. Worthington will erect dwelling; cost \$5000.

Okl., Tulsa.—O. L. Gates will erect residence; cost \$4250.

Okl., Tulsa.—W. J. Crabb will erect \$2500 residence.

Okl., Tulsa.—Blair Brothers will erect 2 dwellings; cost \$10,000 and \$8000, respectively.

Okl., Tulsa.—Chas. A. Brown will erect dwelling; cost \$7000.

Okl., Tulsa.—Malloy & O'Connor will erect residence; cost \$6000.

Okl., Tulsa.—W. K. Campbell will erect \$13,000 residence.

Okl., Tulsa.—Cone & McCullough will erect residence; cost \$15,000.

Okl., Tulsa.—H. W. Backer will erect residence; cost \$2500.

Okl., Tulsa.—Mrs. Mary E. Chastain will erect residence; cost \$5000.

Okl., Tulsa.—K. E. Miller will erect \$2400 residence.

S. C., Florence.—A. L. Sessions has plans by Hayensworth & Lawton for residence; 2 stories; 10 rooms; wood shingle roof; wood floors; open grates; electric lights; bids opened in about 10 days; cost \$4000. (Lately noted damaged by fire.)

Tex., Abilene.—H. L. Bentley will erect 5-room bungalow.

Tex., El Paso.—Turberville & Franklin will erect brick bungalow; cost \$2650.

Tex., Orange.—A. J. Miller, Archt., Box 166, Orange, receives bids until March 23 to erect hollow-tile residence and garage.

Tex., San Antonio.—Alex. Bagarry will erect 5-room dwelling; cost \$2300.

Tex., San Antonio.—W. T. Owan will erect dwelling; cost \$2100.

Tex., San Antonio.—Fred. Schneider will erect 5-room dwelling; cost \$2000.

Tex., San Antonio.—Mrs. G. Spilman will erect 5-room dwelling; cost \$2000.

Tex., Sherman.—Jim B. Wilson, owner, or S. B. Elliott, Archt., Sherman, receives bids until March 27 to erect 1-story and basement brick and tile residence; plumbing, heating and electric wiring under separate contract.

Va., Norfolk.—W. E. Thomas has plans by Phillip B. Moser, Norfolk, for four 2-story residences; cost \$4500 each; bids opened March 18.

Va., Norfolk.—Homes Association of E. St. N. W., Washington, D. C., will establish bungalow and dormitory colony on property of Columbus Country Club; cost about \$35,000.

Va., Norfolk.—Homes of Association of Norfolk, Inc., Paul T. Collins, Secy.-Treas., 316 Dickson Bldg., contemplates erecting about 200 residences in 2 additions; cost \$2000 and \$3000 each. (Lately noted.)

Va., Pulaski.—H. W. Steger will erect residence.

Va., Richmond.—J. W. Crump will erect 2 brick dwellings; cost \$4500.

Va., Richmond.—Realty & Finance Corporation will erect frame dwelling, 1622 Lamb St.; also erect frame dwelling, 1703 Lamb St.; cost \$4000 each.

GOVERNMENT AND STATE

D. C., Washington.—Bathing Establishment. Bids received at Office Public Buildings and Grounds until March 28 for furnishing materials and labor and constructing bathing establishment on Tidal Basin in Potomac Park.

D. C., Washington.—Treasury Department, W. G. McAdoo, Secy., Washington, will soon receive bids to erect building on Pennsylvania Ave. and Madison Place; 125x70 ft.; stone, except on alley in rear where terra-cotta facing is used above first story; tile and copper roof; cost \$1,250,000; C. Gilbert, Archt., 11 E. 34th St., New York.

Fla., Key West—Magazine.—Bureau of Yards and Docks, Navy Department, Washington, D. C., is having plans prepared for magazine building.

Ga., Atlanta.—American Red Cross Assn., Washington, D. C., will erect convalescent house at Camp Gordon. (See Association and Fraternal.)

La., Baton Rouge.—Vault.—Board of State Affairs will construct \$25,000 fireproof vault adjoining capitol building.

Md., Baltimore—Baths, etc.—Quartermaster-General's Dept., Washington, D. C., will erect 40 baths and pyramid tents at Canton.

Md., Indian Head—Cottages.—Navy Department, Washington, D. C., will erect 7 cottages.

Md., Meade, P. O. Baltimore—Hospital.—War Department, Washington, D. C., will

enlarge base hospital to accommodate 2300 beds.

N. C., Charlotte—Camp.—War Department, Washington, D. C., will double size base hospital at Camp Greene; also erect convalescent hospital; provide camp with sewer system for which \$80,000 was appropriated; construct roads and streets; probably build hotel; Major Clarence H. Greene, Constructing Quartermaster, Camp Greene.

N. C., Gastonia—Camp.—War Department, Washington, D. C., will erect 6 mess halls for military range; water mains and light lines extended by city.

N. C., Southport—Postoffice.—Clarendon Hotel Co. will be incptd. with \$50,000 capital by Robt. Stride and others; has plans by H. E. Bonitz, Wilmington, N. C., for postoffice, store and hotel building. (See Hotels.)

S. C., Charleston—Aviation School.—War Dept., Washington, D. C., will establish army aviation school; W. D. Chitty will superintend construction of buildings.

S. C., Charleston—Immigration Building.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will erect "L" addition to immigration building—also dining-room for employees; wood; \$50,000 appropriated; Capt. B. C. Bryan, Commandant at navy-yard.

S. C., Columbia—Reformatory, etc.—State will erect reformatory for girls and institutional school for feeble-minded at State Park near Columbia; Richard I. Manning, Governor. (See Schools.)

S. C., Greenville—Theaters.—War Camp Community Service will erect 2 auditoriums at Camp Sevier; J. T. Hughes, Mgr. Liberty programs, Camp Sevier.

Tex., Fort Worth—Hospital, etc.—War Department, Washington, D. C., will expend \$2,500,000 for additional construction work at Camp Bowie to include new wards at base hospital, officers' and nurses' quarters, Liberty Theater, warehouses, stables, etc.; Major Dwight Horton, Constructing Quartermaster, Camp Bowie. (Previously noted in part.)

Va., Norfolk—Hospitals.—Navy Department, Washington, D. C., will improve and enlarge naval hospital; construct temporary barracks, etc.

HOSPITALS, SANITARIUMS, ETC.

Ala., Mobile.—Chickasaw Shipbuilding Co., J. F. Coleman, Gen. Supt., will erect \$150,000 hospital in connection with shipbuilding plant.

Fla., Miami.—City will expend \$5000 to improve city hospital, including operating-room, enclosing sun porches with glass for wards, purchase septic tank, etc.; M. B. Eckey, Health Committeeman.

Ky., Lexington.—Blue Grass Sanatorium indefinitely postponed letting contract to erect administration building; L. K. Frankel, Archt., Lexington. (Previously noted to receive bids until Jan. 12.)

Ky., Paducah.—City will erect addition to nurses' home at Riverside Hospital; Frank N. Burns, Mayor.

Md., Baltimore—South Baltimore Eye, Ear and Throat Hospital will erect hospital; plans include accident ward and operating-room, general operating-room, nurses' home to accommodate 20; cost \$25,000; Edward A. Weiler, 648 Equitable Bldg., Chrmn. Com.

Md., Meade, P. O. Baltimore.—War Department, Washington, D. C., will enlarge base hospital to accommodate 2300 beds. (See Government and State.)

Mo., Joplin.—City votes April 2 on \$40,000 bonds to purchase site, remodel buildings and erect detention home and city hospital. (See City and County.)

N. C., Charlotte.—War Department, Washington, D. C., will double size base hospital at Camp Greene. (See Government and State.)

Tex., Fort Worth.—War Department, Washington, D. C., will expend \$2,500,000 for additional construction work at Camp Bowie to include new wards at base hospital, etc. (See Government and State.)

Va., Norfolk.—Navy Department, Washington, D. C., will improve and enlarge naval hospital; construct temporary barracks, etc.

Va., Richmond.—Retreat for the Sick, Mrs. John B. Lightfoot, Chrmn. Building Com., will erect hospital.

HOTELS

Ala., Florence.—W. L. Reeder will erect hotel and apartment-house; 3 stories.

Fla., Lake Worth.—M. H. Farmer acquired Graystone Hotel, and will remodel.

Fla., Passagralle.—George Lizotte will probably rebuild Lizotte Hotel noted damaged by fire at loss of \$26,000.

Fla., St. Petersburg.—L. H. Miller and Edward Edwards will erect fireproof hotel.

La., Vinton—Vinton Hotel & Improvement Co. Incptd. with \$40,000 capital; A. Perry, Prest.; S. J. Welsh and C. Burt Hampton, V.-Ps.; L. Sells, Secy.-Treas.; will erect hotel; E. W. Phillips, Archt., Lake Charles. (Previously noted.)

Mo., Jefferson City.—J. Huegel has plans by E. M. Plump for hotel; cost about \$200,000.

N. C., Mount Airy.—W. J. Byerly and others acquired Blue Ridge Inn and will remodel for hotel; cost \$25,000.

N. C., Southport.—Clarendon Hotel Co. will be incptd. with \$50,000 capital by Robert Stride and others; has plans by H. E. Bonitz, Wilmington, N. C., for hotel building at Davis and Moore Sts.; 165x99 ft.; lower floor for postoffice and several stores.

Okl., Hockersville.—C. E. Guinn will erect 28-room hotel.

Okl., Miami.—Duffy & Christensen has plans by W. Griffeth & Son, Miami, for hotel at B and First Sts. N. W.; 75x120 ft.; 3 stories; concrete basement; brick superstructure; stone trim; composition, pitch and gravel roof; wood floors; cement side-walks; cost \$40,000; heating, \$5000; electric lighting, \$700; day labor. Address Duffy Construction Co. (Lately noted.)

Okl., Tulsa.—O. K. Eysenbach, 202 Calumet Bldg., has plans by Fleming & Fabry, 11 Alexander Bldg., Tulsa, for hotel and store building at 210-20 N. Main St.; 3 stories; 150x140 ft.; reinforced concrete and brick; composition roof; cement and wood floors; steam heat; gas and electric lights; estimated cost \$80,000; contract let about March 25 to April 1. Address owner.

S. C., North Augusta.—Aiken County Hotel Co., H. H. Bell, Prest., will erect 60-room addition to Hampton Terrace Annex. (Lately noted.)

Va., Hopewell.—Hopewell Lodge, Loyal Order of Moose, plans to erect hotel, theater and lodge building.

MISCELLANEOUS

Ala., Selma—Barn.—E. K. and C. J. Marshall will erect sales barn; cost \$3000 to \$4000.

Ga., Valdosta—Fair.—Georgia-Florida Fair Association has plans by Lloyd B. Greer, Valdosta, for 4 buildings to include agricultural hall, swine barn, cattle barn and woman's building. (Lately noted.)

Md., Frederick—Dairy Barn.—Chas. E. Klein will erect dairy barn on farm near Frederick.

Mo., St. Louis—Clubhouse.—Mercantile Club, W. E. Bilheimer, Prest., plans to expand \$100,000 to remodel interior of building; will probably install swimming-pool, gymnasium, etc.

Tex., Palacios—Home.—Baptist Home for Aged Preachers chartered by W. M. Teal and E. Ammons, Palacios, M. M. Wolf, Houston, and others; will erect home for aged preachers.

Va., Newport News—Barracks Building.—Newport News Shipbuilding & Dry Dock Co. will erect 2-story barracks building for employees.

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RAILWAY STATIONS, SHEDS, ETC.

Ala., Gadsden.—Gadsden, Bellevue & Lookout Mountain Railway, Lou Hart, Mgr., will erect carbarn at Bellevue Highlands; 50x140 ft.; lumber and sheet iron; paper roof; cement floors; construction begins in 30 days. (Lately noted.)

Mo., Baltimore.—Northern Central Ry. Co., G. R. Sinnickson, Supt., states company does not plan to erect lately-noted toolhouse on Loney's lane.

Fla., Ozark.—City will erect school to replace structure noted damaged by fire; brick; tin or slate roof; city electric lights; other details not determined; Dr. L. H. Holman, Chrmn. Ozark City School Board.

Ark., Pine Bluff.—Trustees, State Industrial School for Boys, W. M. Deaton, Supt., will erect school building; construction under supervision of Thomas Ward. (Lately noted.)

Tenn., Bristol.—Sullins College Board of Directors will erect building to accommodate 100; cost about \$40,000.

Tex., Austin.—State Board of Education plans to erect school; \$63,000 available.

Tex., Beaumont.—South Park School District votes April 13 on \$97,500 bonds to purchase sites, erect school buildings, repair and equip present structures; L. M. Hebert, Prest. Board of Trustees.

Tex., Cleburne.—Lone Star School District will erect school building; brick and tile; cost \$5000; C. H. Leinbach, Archt., 1105 S. W. Life Bldg., Dallas.

Tex., Dallas.—Lagow Ind. School District has plans by C. H. Leinbach, 1105 S. W. Life Bldg., Dallas, for school building; 56x77 ft.; 2 stories and sub-story; brick, tile and concrete; tar and gravel roof; wood floors; room heaters; electric wiring; contract let March 15; cost \$18,000 to \$20,000. Address architect. (Lately noted.)

Tex., Dallas.—Lisbon School District will erect building; 2 stories and sub-story; brick, tile and concrete; 55x77 ft.; contract let

ing building at University of Florida; cost \$14,000.

Ga., Manassas.—Manassas School District, W. H. Wood, J. H. Rogers, W. H. Jenkins, Trustees, receives bids until April 1 to erect school building.

Ga., Ty Ty.—City votes \$2500 bonds to erect and equip school; R. K. Pickett, Mayor. (Lately noted.)

Ky., Cynthiana.—City votes April 30 on \$65,000 bonds to erect 2 schools, one of which is to replace structure lately noted damaged by fire. Address The Mayor.

La., Kinder.—Allen Parish School Board, Oberlin, La., will call election on \$60,000 bonds to be supplemented by \$12,000 insurance to erect school to replace burned structure.

La., Logansport.—Logansport School District of De Soto Parish voted \$25,000 school building bonds. Address School Trustees.

Miss., Clarksdale.—School Board is having plans prepared by R. H. Hunt, Chattanooga, Tenn., for high school building for which \$95,000 bonds were voted; Frank Gates, Asst. Archt., Clarksdale.

Miss., Gloster.—School Board, W. E. McGeehe, Secy., has plans by Emmett J. Hull, Daniel Bldg., Jackson, Miss., for school building; about 60x85 ft.; brick and frame; flat built-up roof; wood floors; steam heat; city electric lighting; \$26,000 available for building complete; bids opened April 6. (Lately noted.)

Miss., Greenville.—Washington County Supervrs. will issue \$10,000 additional bonds to erect \$25,000 school in Riverside Consolidated School Dist.

Miss., Holcomb.—Holcomb Consolidated School District plans to issue \$5000 bonds for school improvements to include teachers' home, etc.; W. V. Horton, Prest. Board of Supervisors of Grenada County, Grenada, Miss.

Mo., Concordia.—Evangelical Lutheran Synod of Missouri, Ohio, and other States, has plans by Chas. F. May, 408 Olive St., St. Louis, for 2 buildings at St. Peter's College, for living-rooms and gymnasium; 125x134 ft. and 51x80 ft.; reinforced concrete and brick; asphalt roof; cement, tile and wood floors; cost about \$55,000; heating, \$6000; date opening bids not decided. (Lately noted.)

Mo., Pierce City.—Pierce City School Dist. voted \$14,000 bonds to erect high school. Address School Trustees.

Mo., St. Louis.—Christian Brothers' College will erect \$200,000 college building on Clayton Rd.

N. C., Charlotte.—Board of School Commrs., John M. Wilson, Treas., receives bids until April 8 to erect 8-room brick school in Third Ward; cost \$18,000; also receives bids April 9 to erect 8-room frame building in First Ward; cost \$8000; 2-room additions to Fourth Ward and Dilworth schools; cost \$4000 each; plans and specifications at office J. F. Leiter, Archt., Atlanta, and Mr. Wilson as above. (Lately noted.)

N. C., Marshall.—City Board of Education will erect high school to replace building noted damaged by fire at loss of \$12,000.

N. C., Mooresville.—Mooresville School District votes April 9 on \$10,000 bonds to erect school building. Address School Trustees. (Lately noted.)

S. C., Columbia.—State will erect reformatory for girls and institutional school for feeble minded at State Park, near Columbia; Richard I. Manning, Governor. (\$60,000 appropriation lately noted for latter structure.)

Tenn., Bristol.—Sullins College Board of Directors will erect building to accommodate 100; cost about \$40,000.

Tex., Austin.—State Board of Education plans to erect school; \$63,000 available.

Tex., Beaumont.—South Park School District votes April 13 on \$97,500 bonds to purchase sites, erect school buildings, repair and equip present structures; L. M. Hebert, Prest. Board of Trustees.

Tex., Cleburne.—Lone Star School District will erect school building; brick and tile; cost \$5000; C. H. Leinbach, Archt., 1105 S. W. Life Bldg., Dallas.

Tex., Dallas.—Lagow Ind. School District has plans by C. H. Leinbach, 1105 S. W. Life Bldg., Dallas, for school building; 56x77 ft.; 2 stories and sub-story; brick, tile and concrete; tar and gravel roof; wood floors; room heaters; electric wiring; contract let March 15; cost \$18,000 to \$20,000. Address architect. (Lately noted.)

Tex., Dallas.—Lisbon School District will erect building; 2 stories and sub-story; brick, tile and concrete; 55x77 ft.; contract let

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MANUFACTURERS RECORD.

March 16; C. H. Leinbach, Archt., 1105 S. W. Life Bldg., Dallas. (Lately noted.)

Tex., Dallas.—Southern Methodist University, Dr. R. S. Hyer, Prest., will erect \$24,000 gymnasium; brick; 1 story; 180x80 ft.; contain swimming pool 50x70 ft., lockers, shower baths, basketball court and bowling alleys.

Tex., Denton.—School District No. 49 will vote on \$4000 bonds to erect school building. Address School Trustees.

Tex., Orange.—Williamson Schools Nos. 1 and 2 (District 11) will consolidate and erect high school. Address School Trustees.

Va., Onancock.—City will erect \$15,000 school building. Address The Mayor.

STORES

Ark., Batesville.—F. W. Brewer will erect store building on Main St.

D. C., Washington.—Louis Perna, 827 Fourteenth St. N. W., will remodel store and dwelling, 107 D St. N. W.; cost \$3000.

Fla., Passagridge.—J. J. Duffy will repair building noted damaged by fire at loss of \$300.

Fla., Pensacola.—Rhodes-Collins Furniture Co. will erect 4 stores; pressed brick; plate-glass fronts.

Ga., Atlanta.—Collins Bros., agents, Empire Bldg., will erect store building; one story and basement; 40x60 ft.; brick and tile; tar and gravel roof; cost \$5000; A. Barili, Jr., Archt., Grant Bldg., Atlanta.

Ga., Statesboro.—W. H. Sharpe will erect store building.

Ga., Tifton.—T. W. Tift is having plans prepared by A. Barili, Jr., Grant Bldg., Atlanta, for store building; 1 story; 30x100 ft.; brick; tin roof; plate-glass front.

La., Alexandria.—A. B. Pendleton will erect store and office building; brick, concrete and steel; cost about \$125,000.

La., Arcadia.—B. A. Brewer will erect building to replace structure lately burned; concrete construction; 60x90 ft.

Md., Baltimore.—Chas. Newman, 330 Pratt St., will erect 3-story store building at Pratt and Eutaw Sts.

Miss., Laurel.—Fine Brothers are having plans prepared by Kirkpatrick Brothers, St. Louis, for remodeling store front.

Mo., Kansas City.—Holtman Heating Co. has plans by Smith, Rea & Lovitt, 602 Finance Bldg., Kansas City, for store building; 3 or 4 stories; brick and reinforced concrete.

Mo., Kansas City.—F. H. Jennings will erect 1-story brick business building; cost \$500.

Mo., Kansas City.—John A. Miller will erect 2-story brick store and flat building; cost \$2500.

Mo., St. Louis.—A. P. Erker has permit to erect store building; concrete foundation; cost \$10,000.

N. C., Durham.—Gilbert C. White will erect brick business building.

N. C., Southport.—Clarendon Hotel Co. will be incepted with \$50,000 capital by Robt. Stride and others; has plans by H. E. Bonitz, Wilmington, N. C., for hotel, store and postoffice building. (See Hotels.)

Okla., Miami.—Mrs. Jessie A. Brown is receiving bids to erect brick and stone business and office building; 3 stories; cost \$5000; Griffith & Son, Archts., Miami. (Lately noted.)

Okla., Picher.—Frank Negin, Bunker, Mo., will erect concrete building on Main St.

Okla., Tulsa.—Theodore Anderson will erect store building; apartments above; 2 stories; brick; cost \$3000.

Okla., Tulsa.—R. T. Daniel will erect \$6000 store building.

Okla., Tulsa.—O. K. Eysenbach, 202 Calumet Bldg., has plans by Fleming & Fabry, 11 Alexander Bldg., Tulsa, for store and hotel building; 3 stories; 150x140 ft.; reinforced concrete and brick; composition roof; cement and wood floors; steam heat; gas and electric lights; cost about \$80,000; contract let March 25 to April 1. Address owner. (See Hotels.)

Tenn., Knoxville.—Kuhlman & Chambliss Co., Dan M. Chambliss, Prest.-Gen. Mgr., leased building and will remodel for drug store; plans include arcade, fixtures, etc.

Tenn., Knoxville.—Morris Bart will erect 3-story brick annex to store building; 50x150 ft.; electric lights; sprinkler system; cost about \$58,000.

Tenn., Nashville.—Whitworth Estate will expend \$8000 to repair brick building, 520-26 Union St.

Tex., Hemphill.—Winfield Morris will erect store building to replace structure lately noted damaged by fire; 66x80 ft.; brick; metal roof; wood floors; will probably let contract to John Thompson, San Augustine, Tex.

W. Va., Moundsville.—C. E. Pickett has permit to remodel structure for business building.

W. Va., Moundsville.—Alex Sleime will remodel building for store.

THEATERS

N. C., Charlotte.—F. H. Harris of Carolina Theater will be manager of theater to be erected at Camp No. 4; seating capacity 3000; cost \$5000.

S. C., Anderson.—Bijou Moving Picture Theater has plans by Casey & Fants, Archts., Anderson, for remodeling and redecorating theater; raise ceiling 16 inches; install heating plant, etc.; cost \$5000. (Lately noted.)

S. C., Greenville.—War Camp Community Service will erect 2 auditoriums at Camp Sevier; J. T. Hughes, Mgr. Liberty programs, Camp Sevier. (See Government and State.)

Tenn., Nashville.—Crescent Amusement Co. has plans by Marr & Holman, Nashville, for vaudeville theater; 85x180 ft.; 2 balconies, mezzanine and orchestra floor; fireproof; concrete and steel; composition roof; concrete floors; steam and blower system heat; cost \$100,000; bids opened about April 15. (Lately noted.)

Tex., Dallas.—Trinity Theater Co. Incptd. with \$2000 capital by H. Hulsey, H. Stuart and Harry B. Hearn.

Tex., Fort Worth.—War Department, Washington, D. C., will erect Liberty Theater at Camp Bowie. (See Government and State.)

Va., Hopewell.—Hopewell Lodge, Loyal Order of Moose, plans to erect theater, hotel and lodge building.

WAREHOUSES

Fla., Miami.—R. C. Gardner will erect lately-noted warehouse for wholesale gro-

cery; reinforced concrete; combination roof; wood floors, cement basement; cost \$10,000; elevator not purchased; plans and construction by owner; will also soon begin construction of warehouse for Swift & Company; 50x110 ft.; reinforced concrete; combination roof; wood floors; basement, cement; cost \$10,000.

La., Kinder.—Allen Parish School Board, Oberlin, La., ordered vote April 16 on \$60,000 bonds to erect school building to replace building damaged by fire; brick; composition roof; wood floors; cost \$72,000; bids opened last of May or June. (Lately noted.)

La., Monroe.—City will erect warehouse on river; 40x80 ft.; iron construction; wood floors; cost \$7500; bids opened March 20. Address R. O. Morrison, City Engr. (Lately noted.)

La., New Orleans.—Dixie Mill Supply Co. acquired Excelsior Warehouse and will re-model same.

S. C., Spartanburg.—Lummus Machinery Co., Julian L. Lummus, Prest., will erect brick warehouse.

N. C., Ayden.—Planters' Warehouse Co. will erect brick tobacco warehouse; cost \$15,000.

Tenn., Nashville.—Nashville Warehouse & Elevator Co. will alter brick warehouse, 1127 Fourth Ave.; also repair fronted warehouse, L. & N. terminal yards; cost \$4000.

Tex., Beaumont.—Phoenix Furniture Co. will erect 2-story addition to brick warehouse.

Tex., San Antonio.—Humble Oil & Refinery, T. D. Hoffer, Gen. Mgr., will expend \$75,000 for improvements to plant to include erection of additional warehouses, etc.

Tex., San Antonio.—Krueger Machinery Co. organized with \$100,000 capital; Max A. Krueger, Prest.-Mgr.; W. K. Ewing, V.-P.; W. W. Van Voorhis, Jr., Secy.-Treas.; has plans by Herff & Jones, San Antonio, for warehouse.

Va., Richmond.—Sitterding, Carnal, Davis Co., 1501 W. Moore St., will erect 3-story warehouse; 40x120x35 ft.; brick; tin roof; wood floors; cost \$10,000; electric elevator \$1500; plans and construction by owner.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

cl. Address H. P. Demand, Camp Secy., El Paso. (Lately noted.)

BANK AND OFFICE

Ala., Athens.—Citizens' Bank & Trust Co. let contract to Baxter Bros., Huntsville, to erect bank building; 24.6x90 ft.; Alabama limestone, reinforced concrete and marble; tar and gravel roof; concrete floors; hot-water heat; electric lights; Manley & Young, Archts., Knoxville, Tenn.

Ala., Birmingham.—Bank of Metter let contract to Geo. W. Muller Co., Atlanta, to remodel bank building; Georgia and Tennessee marble interior finish; cost \$20,000; completion by July 1.

Md., Baltimore.—HarGar Co., Oliver St. and Maryland Ave., let contract to Willard E. Harr Co., 213 N. Calvert St., Baltimore, to erect building for offices and shops on Oak St. between 23d and 24th Sts.; 25x54 ft.; 2 stories; brick; slate roof; ordinary floor construction; cost \$3000. Address owner.

Okla., Miami.—Miami Trust & Savings Bank will erect building at Main and Central Ave.; 6 stories; reinforced concrete; work let on percentage basis and superintended by local architect.

Tex., Fort Worth.—Dan Waggoner let contract to J. C. Buchanan, Fort Worth, to erect 6 additional stories to office building at Sixth and Houston Sts.; reinforced concrete faced with brick; cost \$140,000.

Tenn., San Antonio.—National Bank of Commerce let contract to J. P. Haynes, P. O. Box 28, San Antonio, to erect bank and office building; 56x106.9 ft.; 7 stories and basement; reinforced concrete; tar and gravel roof; cement floor; cost \$150,000; steam heat, \$14,000; wiring, \$7000; prism vault lights, \$100; Otis elevators, \$18,000; Adams & Adams, Archts., San Antonio. (Lately noted.)

W. Va., Nitro.—Baker-Myer Realty Co. let contract to erect office building.

CHURCHES

Ark., Dermott.—Methodist Church let contract to erect parsonage; 5-room bungalow. Address The Pastor.

La., Atlanta.—Jackson Hill Baptist Church let contract to W. B. Parr, Atlanta, to erect building to replace structure previ-

ously noted damaged by fire; cost \$13,500; Francis P. Smith, Archt., Atlanta. (Lately noted.)

Okla., Tulsa.—First Christian Church let contract to J. B. Wilson, Tulsa, to erect building; 128x129 ft.; cut stone, brick and concrete; clay tile and tin roof; reinforced concrete and wood floors; battery or warm-air furnace and fan for heating; city electric lights; cement sidewalks; cost \$150,000. Address contractor. (Lately noted.)

S. C., Union.—Grace M. E. Church South let contract to J. M. Crawford to erect building; ordinary construction; stone exterior; slate and composition roof; steam heat; cost \$30,000; Casey & Fants, Archts., Anderson.

Tex., Beaumont.—North End Methodist Episcopal Church South, Rev. D. W. Moore, pastor, let contract to Edward Lee, Beaumont, to erect parsonage; 8 rooms; cost \$3000.

Tex., Mt. Pleasant.—First Baptist Church let contract to A. W. Recklet, Mt. Pleasant, to erect building; 65x85 ft.; 2 stories and basement; brick, concrete and steel; Spanish tile roof; wood and concrete floors; hot-air heat; city lighting; concrete sidewalks; cost \$35,000; Van Slyke & Woodruff, Archts., Fort Worth, Tex. (Lately noted.)

Va., Richmond.—Mizpah Presbyterian Church let contract to A. F. Perrin, Richmond, to repair building; stucco; slate roof; wood floors; cost \$2800. (Lately noted.)

Va., Richmond.—Swansboro Baptist Church, C. H. Robinson and others, Trustees, let contract to D. J. Farrar, Mechanics' Bank Bldg., Richmond, to erect building; 28x51.6 ft.; frame; tin roof; wood floors; gas heat; cost \$231; electric lights, \$100; gravel walk, \$25. Address Rev. W. H. James, Jr., 207 N. Foushee St. (Lately noted.)

Va., Staunton.—Gypsy Smith Union Evangelistic Campaign let contract to L. W. Puffenberger, Staunton, to erect tabernacle; 90x130 ft.; frame; felt roof; stoves; cost \$4200.

CITY AND COUNTY

Ala., Birmingham.—Park.—City let contract to Jas. L. Carey, Brooklyn, N. Y., to erect dance pavilion, roller coaster and bathhouses at East Lake Park. (Lately noted.)

Md., Baltimore.—Ash-receiving Station.—City let contract at \$32,480 to Wm. A. Parr, 1521 E. North Ave., Baltimore, to construct ash-receiving station in bed of Jones Falls between Preston and Biddle Sts.; gravity conveyors for carrying ashes, etc., to cars; contract let to same contractor for concrete work and excavation.

Va., Heathsville.—Jail.—Board of Supervisors of Northumberland County let contract to remodel jail; cost \$3000.

Fla., Palatka.—Jail.—Putnam County Commissioners let contract to Pauly Jail Building Co., St. Louis, to improve jail; new plumbing and heating installation; steel cell work; Mark & Sheftall, Archts., Jacksonville. (Previously noted.)

DWELLINGS

Ala., Russellville.—J. E. Wilson has plans by O. S. Lang, Leesburg, for lately-noted residence; 32x52 ft.; stucco on wire lath; asphalt shingle roof; wood and tile floors; hot-air furnace; electric lights; contract let. Address architect. (See Machinery Wanted—Tile.)

Ark., Little Rock.—C. L. Stuckey will erect residence; contract let.

Ark., Little Rock.—John Pruniski let contract to erect residence.

Ark., Little Rock.—Mrs. C. C. Stuckey will erect residence; contract let.

Fla., Leesburg.—W. R. Van Sant let contract to erect residence; 40x68 ft.; brick veneer; tile roof; wood and tile floors; fireplaces; Delco lighting system; O. S. Lang, Archt., Leesburg, may be addressed. (See Machinery Wanted—Tile.)

Fla., Orlando.—E. H. Stout let contract to Hanner Bros., Orlando, to remodel residence; will provide sleeping porches, 2 bathrooms, columns at front, etc.; cost \$3000.

Fla., Seabreeze.—Miss Julia Kinston let contract to L. Z. Burdick, Seabreeze, to erect residence; 2 stories; 6 rooms.

Fla., St. Augustine.—G. W. Atkinson let contract to C. B. Shugart, St. Augustine, to erect 1½-story bungalow in Nelmar Terrace.

La., Milledgeville.—Dr. L. W. Lee let contract to erect residence.

La., Eron.—Tremont Lumber Co. let contract to L. C. Calhoun, Monroe, La., to erect about forty 3-room cottages.

Mo., St. Louis.—G. J. Rupp let contract to F. J. Rupp Building & Contracting Co., St. Louis, to erect 2-story dwelling at 5376 Queens Ave.; 29x32 ft.; slate roof; wood floors; hot-water heat; electric lights; cost \$5250; Frank Hueser, Archt., St. Louis. Ad-dress Contractor.

N. C., Winston-Salem.—E. B. Kearns let contract to Paul Miller, Winston-Salem, to erect farm residence.

Okla., Tulsa.—R. H. Siegfried, Box 1012, Tulsa, let contract to B. F. King, Tulsa, to erect residence; 26x38 ft.; frame; shingle roof; oak floors; gas heat; cost \$3000; Lewis Manufacturing Co., Archt., Bay City, Mich. (Lately noted.)

Tex., El Paso.—W. J. Regan, 412 W. Boulevard, let contract to J. E. Morgan, El Paso, to erect residence at 2116 Mesa Ave.; 46x28.6 ft.; pressed brick; composition shingle roof; hardwood floors; furnace heat; cost \$4000; Trost & Trost, Archts., El Paso. (Lately noted.)

Tex., San Antonio.—J. S. Jackson, 1224 Virginia Blvd., let contract to H. P. Mockert, 1610 S. Flores St., San Antonio, to erect residence; 6 rooms and sleeping porch; frame; shingle roof; oak floors; cost \$4000.

W. Va., Borderland.—Borderland Coal Co. let contract to W. B. Elswick, Williamson, W. Va., to erect forty 1-story brick cottages; asphalt shingle roofs; hardwood floors; electric lights.

GOVERNMENT AND STATE

N. C., Azalea—Sanitarium.—War Department, Washington, D. C., let contract to Gude & Co., Atlanta, to erect tuberculosis sanitarium to cost about \$1,700,000; Capt. T. Boyd, Archt., Surgeon-General's Office, Washington. (See Hospitals.)

Tex., El Paso—Warehouse.—Government let contract to Jolly & Morris, El Paso, to erect \$10,000 warehouse.

Tex., Fort Bliss—Association.—National War Work Council, Y. M. C. A., New York, let contract to Ponsford & Son, El Paso, to erect Y. M. C. A. building; cost \$7000. (See Association and Fraternal.)

Va., Newport News—Theater.—War Camp Community Service let contract to erect Liberty Theater at Camp Stuart; accommodate 3000.

HOSPITALS, SANITARIUMS, ETC.

N. C., Azalea.—War Department, Washington, D. C., let contract to Gude & Co., Atlanta, to erect tuberculosis sanitarium to cost about \$1,700,000; accommodations for about 1000 soldiers; administration building, home for nurses, central store, chapels, etc.; glass enclosed passages connecting buildings; build sewerage system; will use Kenilworth Hotel in connection with sanitarium; Capt. T. Boyd, Archt., Surgeon-General's Office, Washington. (Lately noted.)

Okla., Yale.—Mabel Dale let contract to Stewart & Wilderson, 1213 State National Bldg., Oklahoma City, to erect \$60,000 hospital; fireproof; brick and reinforced concrete; 2 stories and basement; 24 private rooms and 2 wards; accommodate 60; J. R. Scott, Archt., 1213 State National Bldg., Oklahoma City.

HOTELS

Mo., St. Louis.—Navarre Realty Co. let contract to H. Horowitz, St. Louis, to alter hotel; cost \$5000.

MISCELLANEOUS

W. Va., Glen White—Recreation.—E. E. White Coal Co. let contract on cost plus basis to D. J. Phipps, Roanoke, Va., to erect recreation building; frame, brick and concrete; steam heat; built-up roof; concrete and tile; electric lights; cost \$25,000; Robt. F. Roth, Chief Engr., Glen White.

Fla., St. Petersburg.—Jeremiah Brown let contract to J. A. Kohler, St. Petersburg, to erect storehouse.

RAILWAY STATIONS, SHEDS, ETC.

Tex., Cuero.—Southern Pacific Railway, W. Hood, Chief Engr., San Antonio, let contract to erect proposed freight station.

SCHOOLS

Okla., Sapulpa.—Manhattan Construction Co., Muskogee, Okla., general contractor to erect high school, let following subcontractors: Roofing and sheet-metal work, Hugh L. Turner, Oklahoma City; marble and tile, Sutermeister-Campbell Marble Co.; millwork,

American Sash & Door Co., both of Kansas City; steel, Trussed Concrete Steel Co., Youngstown, O.; stone, Consolidated Stone Co., Bedford, Ind.; painting, Frank Barthell; heating and plumbing, O'Connor Co., both of Muskogee; iron work, Christopher & Simpson Iron Works Co., St. Louis; electric work, Electrical Contracting Co., Tulsa; plans by Chas. A. Popkin, Sapulpa, call for 3-story-and-basement structure; 115x173 ft.; reinforced concrete; fireproof; split system heating and ventilating; light from central power service; cost \$200,000. (Previously noted.)

Tenn., Eads.—Board of Education of Shelby County let contract to Meers & Dayton, 738 Randolph Bldg., Memphis, to erect school building; 1 story; 6 rooms and auditorium; brick, tile and stucco; composition shingle roof; timber floors; heating and lighting undecided; cost \$15,000; Mahan & Broadwell, Archts., Memphis. (Lately noted.)

STORES

Ala., Athens.—Dr. H. D. Westmoreland, Huntsville, Ala., let contract to Baxter Bros., Huntsville, to erect store buildings to be occupied by Bruce Nelson Co. and Limestone Drug Co.; 16x100 ft. and 26x45 ft.; brick and frame roof and joists; tar and gravel roof; Manley & Young, Archts., Knoxville.

Fla., Arcadia.—M. Schlossberg has plans by and let contract to Darvin, Kraemer & Roe, Fort Myers, Fla., to erect building for two stores; 50x85 ft.; stone blocks; Carey roofing; cement floors, covered; cost about \$10,000.

Fla., Orlando.—B. P. O. E. let contract to remodel and enlarge clubhouse; 5 stores on lower floor. (See Association and Fraternal.)

Okla., Stigler.—Midland Valley R. R., C. Kalgan, Ch. Engr., Muskogee, Okla., let contract to J. A. Dickman & Co., Muskogee, to erect proposed depot; brick.

THEATERS

Va., Newport News.—War Camp Community Service let contract to erect Liberty Theater at Camp Stuart; accommodate 3000.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Aluminum Sulphate.—E. E. Davis, Supt. City Water-works, Richmond, Va.—Bids until March 29 on aluminum sulphate, high basicity for water clarification, contain 17 per cent. aluminum oxide, delivered f. o. b. Korah Station, Chesapeake & Ohio Ry., in barrels, at stated times; estimated quantity 880 tons.

Asphalt Blocks.—City Engr., C. E. Bolling, Richmond, Va.—Bids until April 1 to furnish and deliver, by boat or rail, 200,000 asphalt blocks, 12x5x4-in., or 12x5x3-in.; specifications, etc., obtainable; sample block required.

Amusement Devices.—See Shooting Gallery Equipment.—H. L. Birchard.

Bags (Rice).—R. J. Bienvenu, St. Martinville, La. — Dealers' prices on new and second-hand rough rice bags.

Bank Fixtures.—Dr. W. F. Roberts, Troy, Tenn.—Prices on bank fixtures for \$2500 to \$3000 bank building.

Bank Fixtures.—First National Bank, Orange, Tex.—Bids until March 27 to install bank fixtures; plans obtainable from C. H. Page & Bro., Archts., Austin, Tex., upon deposit of \$25 check.

Bank Supplies.—Dr. W. F. Roberts, Troy, Tenn.—Prices on bank supplies.

Blue (Soluble).—United Manufacturing Co., 1006 E. Main St., Norfolk, Va.—Addresses of dealers in soluble blue for making liquid bluing.

Boilers.—See Mining Machinery.—Virginia-Elkhorn By-Products Coal Co.

Boilers.—See Salt Plant.—Blaine County Salt Co.

WAREHOUSES

D. C., Washington.—Emanuel Speich let contract to S. J. Prescott, 814 13th St. N. W., Washington, to erect storage building rear 1325 N St. N. W.; cost \$6000; A. P. Clark, Jr., Archt., 706-9 Equitable Bldg., Washington.

Fla., Miami.—J. E. Withers Transfer Co. let contract to Samuel Stuessy, Miami, to erect storage warehouse; 4 stories; 50x125 ft.; reinforced concrete; fireproof; split system heating and ventilating; light from central power service; cost \$200,000. (Previously noted.)

Tenn., Monroe.—Monroe Mill & Elevator Co., branch of Shreveport Mill & Elevator Co., Shreveport, La., let contract to erect warehouse; frame; 80x110 ft.

La., Monroe.—Monroe Hardware Co. let contract to erect warehouse; 110x210 ft.; 3 stories and basement; brick; built-up roof; wood and concrete floors; city electric lights; 2 Otis freight elevators; J. W. Smith, Archt., Monroe. Address owner (attention C. F. Kramer). (Lately noted.)

Md., Baltimore.—Eagle Manufacturing Co., 410-12 W. Camden St., let contract to Julius E. Pyles, Inc., 410 Dover St., Baltimore, to erect 1-story brick storage-house at 414 W. Camden St.; 24x72 ft.; cement floors; electric lights; slag roof; cost \$3000.

Mo., St. Louis.—Interstate Printing Co. will erect addition to warehouse; cost \$5000; A. Linнемeyer, Contr., St. Louis.

N. C., Enfield.—Halifax County Tobacco Warehouse Co. let contract to H. S. Poole, Rocky Mount, N. C., to erect tobacco warehouse; one 80x182 ft.; three 40x60 ft.; frame; composition roof; wood floors; cost \$12,000; also let contract to same contractor to repair frame building, 80x170 ft., at cost of \$1000 and one 40x80 ft., at cost of \$500.

Tenn., Nashville.—Tennessee Grain Co., Dr. Johnson, Prop., Harding Road, has plans by Chas. Schuyler, Nashville, for warehouse; 50x100 ft.; concrete foundation; iron clad; composition roof; double beech floors; cost \$10,000; all contracts, let.

Tex., Fort Bliss.—Government let contract to Jolly & Morris, El Paso, to erect \$10,000 warehouse. (See Government and State.)

spection for 150 lbs. (or higher) pressure; give full details.

Brick.—See Building Materials.—Dr. W. F. Roberts.

Brick.—C. S. Curtis, Paris, Tex.—Prices and samples of brick for \$14,000 office building; dark red or mat brick preferred.

Bridge Construction (Concrete Girder).—Mingo County Commrs., Williamson, W. Va.—Bids April 4 to construct 7 concrete girder bridges; blue prints supplied by State Road Commission, per R. P. Davis, Morgantown, W. Va.

Bridge Construction (Concrete Slab).—Pendleton County Commrs., Franklin, W. Va.—Bids April 1 to construct 2 concrete slab bridges; blue prints obtainable State Road Commission, per R. P. Davis, Morgantown, W. Va.

Building Materials.—Dr. W. F. Roberts, Troy, Tenn.—Prices on building materials, including brick, common and pressed brick with glass, etc.; roofing; floor tile, etc., for \$2500 to \$3000 bank building.

Building Supplies, etc.—Chas. E. Grant, 418 Praetorian Bldg., Dallas, Tex.—Correspondence with manufacturers of builders' and contractors' supplies, etc.; view to agencies.

Canning Machinery.—John D. Steely, Volusia and Beach Sts., Daytona, Fla.—Prices on equipment for cannery of 100 cans daily capacity, mainly vegetables.

Cars.—Virginia-Elkhorn By-Products Coal Co., J. R. Slayton, Prest., 717 First National Bank, Charleston, W. Va.—44-in. gauge 65-in. mine cars. (See Mining Machinery.)

Cars.—American Metallic Packing Co., Walnut and Clark Sts., Lexington, Ky.—Prices on 15 first-class second-hand 36-in. gauge flat cars; 20,000 to 30,000 capacity.

Car (Flat).—F. E. Patton, Bushnell Bldg., Springfield, Ohio.—Prices on 40-ft., standard-gauge M. C. B. and I. C. C. flat car, at least 80,000-lbs. capacity. (See Railway Equipment.)

Cars (Dump).—A. C. Miley, 59 Central Savings Bldg., Baltimore, Md.—6 dump cars.

Chlorine (Liquid).—E. E. Davis, Supt. City Water-works, Richmond, Va.—Bids until March 29 on 24,000 lbs. liquid chlorine, in 100-lb. cylinders, delivered f. o. b. cars Koral Station, Chesapeake & Ohio Ry. Co., at stated times.

Compressor (Oil or Gasoline).—Wiseman Mines Corporation, Spruce Pine, N. C.—Prices on portable compressor; oil or gasoline; capacity to operate jackhammer drill; give full details.

Concentrator.—M. R. P. O. Box 1169, New York.—Data and prices on concentrators.

Contractors' Equipment.—See Building Supplies, etc.—Chas. E. Grant.

Conveyors, etc.—A. C. Miley, 59 Central Savings Bldg., Baltimore, Md.—2 belt conveyors; chain bucket elevator.

Cotton-ginning Machinery.—Continental Oil Cotton Co., E. S. Kean, Secy., Abilene, Tex.—Will replace gin machinery (lately destroyed by fire); has engine and boiler.

Cotton-ginning Machinery.—Luther King, Rector, Ark.—Bids about May 1 on complete equipment for cotton gin.

Boiler Manufacture.—J. B. Harris, owner, Harris Municipal Garbage Incinerator, No. 65, L. & C. Bldg., Nashville, Tenn.—Correspondence with sheet-metal manufacturers, relative to placing order for manufacture (under royalty) of water-tube boilers and furnace settings; built in units of 100-b H. P. to 1000-b H. P., plain lap riveted drums of 7-16-in. steel sheets, with machine die manholes and manholes for cleaning and removal and inserting new tubes.

Boilers (Water Tube, etc.).—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—For immediate shipment, three 250 H. P. Sterling or water-tube boilers, second-hand, or two 300 H. P.; give lowest dealers' prices; subject to inspection.

Boilers.—Easton Machinery Co., Drake Bldg., Easton, Pa.—Prices on two 150 H. P. horizontal return tubular boilers, 110 or more pounds.

Boilers (Return Tubular).—See Power Equipment.—Granbury Milling Co.

Boilers.—R. W. McKinney, Paducah, Ky.—Prices on boilers of 1000 H. P.

Boilers (Water Tube).—J. L. Neilson & Co., 602 Main St., Winnipeg, Manitoba, Canada.—Prices on one or more Sterling or B. & W. water tube boilers, 200 to 300 H. P., fitted to pass Alberta Canada in-

drain pipe, etc.—E. S. Draper, Landscape Archt., Trust Bldg., Charlotte, N. C.—Data and prices on tile, concrete and cast-iron drain pipes, catch-basins, etc., for mill village development.

MANUFACTURERS RECORD.

Dye.—See Blue (Soluble).—United Manufacturing Co.

Electric Plant Equipment.—City of Shattuck, Okla., A. C. Oliver, Mayor.—Prices on engine and direct-drive generator; switch panel, transformers, etc. (See Water-works Equipment.)

Electrical Equipment.—See Salt Plant.—Blaine County Salt Co.

Electric-light Equipment, etc.—F. W. Burrough, Grapevine Ice & Light Co., Grapevine, Tex.—Prices on 50 H. P. oil engine, 25 H. P. engine, 2 generators and exciters with switchboard.

Electric Fixtures.—M. Blum, Morgan City, La.—Catalogs, etc., on electric fixtures for \$4500 residence.

Electric Power Plant.—See Mining Machinery (Coal).—Virginia-Elkhorn By-Products Coal Co.

Elevator.—See Conveyors, etc. — A. C. Miley.

Engine.—See Generator Set.—Southern Machinery Exchange.

Engine.—E. E. Wollett, Littleton, N. C.—Second-hand Corliss engine; 120 H. P.

Engines.—H. H. Bowie, Camden, Ark.—Prices on engines, etc. (See Water-works.)

Engine (Deisel).—Southern Machinery Exchange, Somerset, Ky.—Dealers' prices on second-hand, 225 H. P. Deisel engine.

Engines.—See Electric Plant Equipment; also Water-works Equipment.—City of Shattuck, Okla.

Engines (Oil).—F. W. Burrough, Grapevine Ice & Light Co., Grapevine, Tex.—Prices on 50 H. P. and 25 H. P. oil engines. (See Electric-light Equipment, etc.)

Engines (Corliss).—See Power Equipment.—Granbury Milling Co.

Engine (Hoisting).—American Metallic Packing Co., Walnut and Clark Sts., Lexington, Ky.—Prices on first-class, second-hand, 25 H. P. steam-hoisting engine; double cylinder, with loose drum, and 2000 lin. ft. 3/4-in. wire rope.

Farm Buildings Data.—E. S. Draper, Landscape Archt., Trust Bldg., Charlotte, N. C.—Data on farm buildings.

Gear Cutters, etc.—Oscar V. Hutchens, Yadkinville, N. C.—Data and prices on phonograph motor gear-cutting machines; also machinery for manufacturing graphophone cabinets.

Generator Set.—Southern Machinery Exchange, Somerset, Ky.—Dealers' prices on 150 K. W., D. C., 250-volt, belted generator, and engine; or direct connected set, same characteristics.

Grading.—District Comms., Engr. Dept., 427 District Bldg., Washington, D. C.—Bids until March 28 for 61,800 cu. yds. grading; proposal forms, specifications, etc., on application.

Hardware.—Navy Dept., Bureau Supplies and Accounts, No. 615, Washington, D. C.—Bids to furnish following, schedule 1719: Wire steel brads; nails (clinch point, heavy, boat, galvanized, wire, steel); roofing, steel wire nails; common-type steel wire nails, various deliveries; and galvanized steel wire spikes (chisel point, oval head), delivery Boston and Charleston.

Heating Plant.—C. S. Curtis, Paris, Tex.—Prices on heating plant for \$14,000 office building.

House Furnishings.—M. Blum, Morgan City, La.—Catalogs, etc., on house furnishings.

Iron Poles.—E. S. Draper, Landscape Archt., Trust Bldg., Charlotte, N. C.—Data and prices on lighting standards.

Lathes (Spoke and Handle).—Southern Machinery Exchange, Somerset, Ky.—Dealers' prices on 4 Defiance automatic spoke and handle lathes.

Knitting Machines (Hand).—Mrs. C. P. Orr, 2704 Highland Ave., Birmingham, Ala.—Catalogues and prices on hand-knitting machines.

Knitting Machinery, etc.—F. Andrensen, Pass Christian, Miss.—Data and prices on hosiery-knitting machines; also on yarns for making hosiery of all grades.

Locomotives (Electric).—Virginia-Elkhorn By-Products Coal Co., J. R. Slayton, Prest., 717 First National Bank Bldg., Charleston, W. Va.—250-volt electric locomotives. (See Mining Machinery.)

Locomotive.—Easton Machinery Co., Drake Bldg., Easton, Pa.—Prices on 7x12 or larger 36-gauge locomotive.

Locomotive (Steam).—F. E. Patton, Bushnell Bldg., Springfield, Ohio.—Prices on three 7x12, 36-in. gauge locomotives. (See Railway Equipment.)

Lumber.—See Salt Plant.—Blaine County Salt Co.

Machine Tools, etc.—Navy Dept., Bureau Supplies and Accounts, No. 615, Washington, D. C.—Bids to furnish 4 motor-driven die-sinking machines; 4 belt-driven surface grinding machines; motor-driven thread-milling machine; 2 belt-driven, wire-feed screw machines, schedule 1721, delivery Washington, D. C.; 400 contact makers, schedule 1718, various deliveries.

Mining Machinery (Coal).—Virginia-Elkhorn By-Products Coal Co., J. R. Slayton, Prest., 717 First National Bank, Huntingdon, W. Va.—Prices on equipment for 1000-ton plant, with 250-volt D. C. power plant; boilers; 250-volt mining machines; 44-in. gauge 65-in. mine cars; locomotives, 250 tons; etc.

Mining Machinery (Lead and Zinc).—Lucky Elk Mining Co., A. B. Clampitt, Secy., Elk City, Okla.—Prices on machinery for lead and zinc mining.

Mining or Quarrying Machinery (Sand and Gravel).—W. W. Gresham, Box 137, Norfolk, Va.—Data and prices on machinery for mining sand and gravel.

Motor (Gasoline; Auto).—Ulster Lumber Co., Livingston Manor, N. Y.—Prices on 4-cylinder Continental gasoline auto motor, about 40 H. P.; used, good condition.

Motors (Electric).—Automotive Tractor Co., Casper E. Cline, Prest., Frederick, Md.—Prices on electric motors. (See Punching and Grinding Machinery.)

Pans.—See Salt Plant.—Blaine County Salt Co.

Parkway Improvement.—Board of Awards, City Hall, Baltimore, Md.—Bids until April 3 for parkway improvement between St. Paul and Courtland Sts., and between Franklin and Lexington Sts.; consist of 20,000 cu. yds. excavation, 950 lin. ft. masonry retaining wall 13 ft. high, with cut-stone balusters and 300 lin. ft. other masonry walls; 5 ornamental stairways and foundations, requiring 15,000 sq. ft. cut stone and 4000 sq. ft. brick work; 3000 lin. ft. curbing, 50,000 sq. ft. sidewalks; drawings and specifications obtainable after March 18 at office of R. M. Cooksey, Highway Engr.

Paving.—City of Lake Alfred, Fla., J. F. Jester, Clerk.—Bids until April 11 on 15,000 sq. yds. asphalt-concrete paving; 65,000 sq. yds. clay paving; 48,000 cu. yds. earth excavation; concrete curbs and gutters; Engr., J. W. Turner, Lakeland, Fla.

Pipe.—Blaine County Salt Co., S. R. Gilchrist, Secy., Hitchcock, Okla.—Prices on pipe and 7-in. vitrified tile pipe; for installation Ferguson, Okla. (See Salt Plant.)

Pipe (Water).—Ulster Lumber Co., Livingston Manor, N. Y.—Prices on 500 ft. 2-in. water pipe; used, good condition.

Power Equipment.—Granbury Milling Co., Granbury, Tex.—Two 72-in. by 18-ft. high-pressure return-tubular boilers with steel casing, breeching and smoke stack 54 in. diam. by 100 ft. high, made of No. 8 iron throughout; stack to have umbrella and 8 guys; boilers complete with all fittings, connections and shaker grates; one 14x36-in. and one 16x36-in. late-pattern Corliss engines; buy second-hand equipment, provided boilers and engines have had but slight use.

Pumps.—H. H. Bowie, Camden, Ark.—Prices on pumps, etc. (See Water-works.)

Paving.—City of St. Albans, W. Va., J. M. Oliver, City Engr.—Bids until April 13 to construct following: 13,200 sq. yds. paving and 6000 cu. yds. grading; 13,000 ft. terra-cotta and brick sanitary sewer; 100,000 sq. ft. sidewalk and 2000 yds. excavation; plans and specifications on file.

Paving.—City of Drumright, Okla., W. E. Nicodemus, Mayor.—Bids April 1 for 60,000 sq. yds. brick paving.

Pergolas.—M. Blum, Morgan City, La.—Catalogs on pergolas.

Pipe (Water, Gas).—Farrar Lumber Co., Dalton, Ga.—Prices on 600 ft. 6 or 8-in. and 600 ft. 4-in. water mains; also 500 ft. 3-in. gas mains; good second-hand cast iron.

Plumbing Fixtures.—M. Blum, Morgan City, La.—Catalogs, etc., on plumbing fixtures for \$4500 residence.

Pumps (Centrifugal).—Bureau Yards and Docks, Navy Department, Washington, D. C.—Bids until April 3 to improve roads; 14,000 sq. yds. pavement; bituminous or other permanent pavement; grading; furnishing and constructing curb and gutters; plans and specifications on file with Chr. C. Comms. and Anderson & Christie, Cons. Engrs., Charlotte, N. C.

cation to Bureau or to commandant of navy-yard named.

Pump (Centrifugal).—Baltimore (Md.) Board of Awards, City Hall.—Bids until March 27 to furnish and erect centrifugal pump of 37,500 gals. per min. capacity for filtration plant at Lake Montebello; specifications and proposal forms obtainable from office of Walter E. Lee, Water Engr., City Hall; charge of \$5 for each set of specifications.

Punching and Grinding Machinery, etc.—Automotive Tractor Co., Casper E. Cline, Prest., Frederick, Md.—Prices on tumbling machine, punching machine, grinding machine and electric motors.

Quay Construction.—Wharf and Dock Comms., City Hall, Beaumont, Tex.—Bids until April 2 to construct following work at Kirby's Point: 1000, 750 and 500 ft. of quays, including dredging, removal of old piles, etc.; specifications, plans, etc., from Wharf and Dock Comms., City Hall, for \$5; C. L. Scherer, City Engr.; W. L. Sutton, City Secy.

Rails.—A. C. Miley, 59 Central Savings Bldg., Baltimore, Md.—1000 ft. railroad track.

Rails.—See Railway Equipment.—F. E. Patton.

Rails.—Appalachian Lumber Co., J. M. Buck, Prest., Johnson City, Tenn.—Prices on about 1 mile 20 to 30-lb. rails; to buy or lease; prefers to lease.

Railway Equipment.—F. E. Patton, Bushnell Bldg., Springfield, Ohio.—Prices on 40-ft., standard-gauge, M. C. B. and I. C. C. flat car, at least 80,000-lbs. capacity; three 7x12, 36-in. gauge steam locomotives; 4 mi. or more 24-in. gauge, 16-lb. or 20-lb. sectional track.

Railways (Marine).—Bureau Yards and Docks, Navy Department, Washington, D. C.—Bids until March 18 for marine railway at navy-yard, Charleston, S. C., and marine railway at navy-yard, Boston, Mass.; drawings and specification (No. 2843) obtained on application to Bureau or to commandant of navy-yard named.

Railway (Marine).—Bureau Yards and Docks, Navy Department, Washington, D. C.—Bids until March 25 for marine railway at Naval Fuel Depot, San Diego, Cal.; drawings and specification (No. 2843) obtained on application to Bureau or to commandant of navy-yard named.

Road Construction.—Dallas County, Chas. E. Cross, County Auditor, Dallas, Tex.—Bids until March 21 to construct Maple Ave. Rd. to Love Field Aviation Camp; specifications on file with J. F. Witt, County Engr., Courthouse, Dallas.

Road Construction.—Manatee County Comms., Wm. M. Taylor, Clerk, Bradenton, Fla.—Bids until April 8 to construct 33 mi. hard-surfaced road and other necessary structures to complete roads in Palmetto Special Road and Bridge Dist.; revised plans and specifications by C. S. Hill, Engr., on file office County Comms. and obtainable for \$1 for specifications and \$5 for plans.

Road Construction.—Pittsylvania County Comms., Chatham, Va.—Bids until April 1 to construct 8 mi. soil road, between Chatham and Callands, and 1 mi. soil road, from Station 200 to Gallie Church; plans and specifications on file at Clerk's office, Chatham, and with State Highway Com., Richmond; specifications furnished by G. P. Coleman, State Highway Com., Chatham.

Road Construction.—Florida State Road Department, Wm. E. Cocke, Commr., Tallahassee, Fla., and Pasco County Comms., Dade City, Fla.—Bids until April 1 to widen and resurface section of Road No. 5 in District No. 5, between Pinellas County line, near Tarpon Springs and New Port Richey; 2 mi.; plans and specifications from State Road Department at Tallahassee, for \$1 and are on file with Clerk of Pasco County Circuit Court at Dade City.

Road Construction.—Cabarrus County Comms., L. A. Wedington, Chr. C. Comms., Concord, N. C.—Bids until April 3 to improve roads; 14,000 sq. yds. pavement; bituminous or other permanent pavement; grading; furnishing and constructing curb and gutters; plans and specifications on file with Chr. C. Comms. and Anderson & Christie, Cons. Engrs., Charlotte, N. C.

Roofing.—See Building Materials.—Dr. W. F. Roberts.

Roller (Steam, etc.).—Ulster Lumber Co., Livingston Manor, N. Y.—Prices on small steam roller; or roller, without power, that can be drawn with traction or horses; used, good condition.

Rope (Wire).—H. V. Maxwell, Elizabeth, Tenn., Tenn.—Prices on 1400 ft. % or % wire rope for use on gravity drum; ready spliced preferred; state condition.

Safe.—Dr. W. F. Roberts, Troy, Tenn.—Prices on safe for \$2500 to \$3000 bank building.

Screens.—See Crushers, etc.—Walter Concrete Machinery Co.

Stack.—Easton Machinery Co., Drake Bldg., Easton, Pa.—Prices on 54 to 60 stack, 90 to 100 ft. long, 3-16 metal.

Steel.—C. S. Curtis, Paris, Tex.—Prices on steel for \$14,000 office building.

Salt Plant.—Blaine County Salt Co., S. R. Gilchrist, Secy., Hitchcock, Okla.—Prices on boilers, pans, pipe, electrical equipment, lumber and 7-in. vitrified tile pipe. (Will convey brine 4 mi. by gravity and install evaporating plant at Ferguson, Okla.)

Sewer Construction.—See Paving, City of St. Albans, W. Va.

Sewage-disposal Plants.—E. S. Draper, Landscape Archt., Trust Bldg., Charlotte, N. C.—Data on sewage-disposal plants for country estates and mill villages.

Sheet-metal Workers.—See Boiler Manufacture.—J. B. Harris.

Shooting-gallery Equipment.—H. L. Birkhard, Gen. Secy., Y. M. C. A., Calumet, Mich.—Addresses of manufacturers and dealers in shooting-gallery equipment.

Stack (Smoke).—See Power Equipment.—Granbury Milling Co.

Steam Feed.—John G. Duncan Co., 308 W. Jackson Ave., Knoxville, Tenn.—Dealers' prices on second-hand shotgun steam feed, for immediate delivery; state condition.

Tank and Tower.—Bureau Yards and Docks, Navy Dept., Washington, D. C.—Bids until April 1 for provision and erection of 30,000-gal. steel tank on 70-ft. steel tower and two 30,000-gal. steel tanks on 30-ft. towers, on concrete foundations provided by Government at navy-yard, Norfolk, Va.; specification (No. 2850) on application to Bureau or to commandant of navy-yard named.

Terra-cotta.—C. S. Curtis, Paris, Tex.—Prices on terra-cotta for office building to cost \$14,000.

Tile.—See Building Materials.—Dr. W. F. Roberts.

Tile.—O. S. Lang, Leesburg, Fla.—Bids on floor tile for residence at Russellville, Ala.; also prices and samples of roof tile and red floor tile for residence at Leesburg.

Tile (Vitrified).—See Pipe.—Blaine County Salt Co.

Truck (Auto).—Ulster Lumber Co., Livingston Manor, N. Y.—Prices on 3½-ton auto truck; second-hand. (See Woodworking Machinery, etc.)

Tubes (Boiler).—Easton Machinery Co., Drake Bldg., Easton, Pa.—Prices on 200 boiler tubes, 18 ft. 4 in. long; second-hand.

Tumbling Machines.—See Punching and Grinding Machines, etc.—Automotive Tractor Co.

Vault.—Dr. W. F. Roberts, Troy, Tenn.—Prices on vault for \$2500 to \$3000 bank building.

Veneer Machine.—See Woodworking Machinery, etc.—Ulster Lumber Co.

Water-works.—H. H. Bowie, Camden, Ark.—Prices on engines, pipes, pumps and machinery.

Water-works Equipment.—City of Shattuck, Okla., A. C. Oliver, Mayor.—Prices on steam engines, internal-combustion engines, pumps, generator, etc.; installing new electric plant and water-works equipment; city of 3500. (See Electric-plant Equipment.)

Water-works Supplies.—E. E. Davis, Sup't. City Water-works, Room 112, City Hall, Richmond, Va.—Bids until March 29 to furnish gate valves, cast-iron pipe, special castings, 3-nozzle fire hydrants, valve boxes, meters, meter boxes, pig lead, wiping solder, lead pipe, brass work and hauling; specifications, plans and information from office of Mr. Davis.

Wheels.—Ed Godlevski, Sunbury, Pa.—Data and prices on wrought-iron wheels, 36 in. diam., with spokes, and cast-iron hub with ratchet teeth; for patented lime-spreading machine; view to placing order.

Well-drilling Equipment.—C. G. & M. Oil & Refining Co., P. D. Mitchell, Secy., Yale, Conn.

Oklahoma.—Prices on second-hand drilling outfit (Star preferred).

Well Casing.—Claude Bell, Box 24, Wirt, Okla.—Prices on 13-lb. steel casing; for installation by S. & D. Oil Co., Ardmore, Okla.

Woodworking Machinery, etc.—Ulster Lumber Co., Livingston Manor, N. Y.—Prices on following good, used machinery: Thin edge stock machine or veneer machine, rotary or circular; short log or the machine; drag saw; edger; trimmer; swing cut-off saw; 50 H. P. boiler; 3½-ton auto truck.

Woodworking Machinery, etc.—John H. Land, Chadbourne, N. C.—Data and prices

on machinery for manufacturing furniture and caskets.

Woodworking Machinery.—Oscar V. Hutchens, Yadkinville, N. C.—Prices on machinery to manufacture graphophone cabinets. (See Gear-cutting Machines, etc.)

Woodworking Machinery (Treenail).—R. S. Eskridge, Richwood, W. Va.—Prices on equipment for manufacturing locust pins or treenails.

Yarns.—F. Andresen, Pass Christian, Miss.—Prices on yarns for hosiery. (See Knitting Machinery, etc.)

Yarn (Carded).—Winner Hosiery Mill Co., Ernest White, Secy., Boiling Springs, N. C.—Prices on carded yarn, 12s, 18s and 30s.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—Birmingham Southern Railroad contemplates building an extension from Fairfield to Shades Valley to transport iron ore and other minerals. Commutation proceedings begun. J. B. McIntyre, Fairfield, Ala., is Chief Engr.

Ala., Montgomery.—Louisville & Nashville Railroad, it is reported, will build a new freight yard at Montgomery, with about 15 tracks. H. C. Williams, Louisville, Ky., is Chief Engr. of construction.

Fla., Thonotosassa.—Report that Atlantic Coast Line was back of survey for a railroad across the northern part of Hillsborough County and into Pasco County, about 18 mi. to San Antonio, Fla., is denied by that company.

Okla., Miami.—It is announced that business interests have subscribed \$200,000 toward the proposed construction of an electric railway, from Miami to Picher and other towns in the mineral district. H. B. Cobban, Pres. of the Miami Business Men's League, may be able to give information.

Tenn., Nashville.—H. W. Stanley and W. K. McAllister, receivers of the Tennessee Central Railroad, have been authorized by the Federal Court to issue \$100,000 of certificates to double track line to Hadleys Bend and for other improvements.

Tenn., Sevierville.—Grade is about completed on the extension of the Knoxville,

Sevierville & Eastern Railway, but it is not expected that the track will be finished by April 1 as planned. It runs from Sevierville to Pigeon Forge, 10 mi.

Tex., Dallas.—Contemplated expenditure of a total of about \$4,000,000 principally for improving track and rebuilding equipment of the Texas & Pacific Railway is not fully decided, although it is declared desirable that the work should be done this year. J. L. Lancaster and Pearl Wight, Whitney-Central Bank Bldg., New Orleans, La., are receivers.

Tex., San Angelo.—It is announced that application has been made on behalf of the Kansas City, Mexico & Orient Railway to the Federal Railroad Administration at Washington for materials to build the projected extension from San Angelo to Sonora, Tex., 63 mi. N. J. O'Brien, San Angelo, is Gen. Mgr.

Va., Swords Creek.—Survey for a railroad about 6 mi. long is reported being made from Swords Creek, on the Norfolk & Western Railway, to coal mines by interests which control them, J. E. Crawford, Chief Engr., Norfolk & Western Railway, Roanoke, Va., may be able to give information.

W. Va., Morgantown.—\$60,000 of receiver's certificates for repairs and betterments on the Morgantown & Wheeling Railway have been authorized by the court. W. E. Glasscock is receiver at Morgantown.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Appointment Announced.

The Walter A. Zehnicker Supply Co. of St. Louis announces that G. W. Bichelmeyer is now connected with its machinery department. He was formerly with the W. L. Sullivan Machinery Co. and also with Missouri Pacific and the Kansas City Southern railroads.

Electric Equipment Acquired.

Henry Potts & Co., 650 Real Estate Trust Bldg., Philadelphia, have recently purchased the entire electrical equipment in the power-house of the Reading Transit & Light Co., at Collegeville, Pa. It is their intention to begin dismantling it soon.

New Has New York Office.

The Cogswell-Koether Company, whose business is building construction, announces that it now has an office in New York, in the Vanderbilt Ave. Bldg., 51 E. 42nd St., and also that it now has associated with it William T. Sitt, vice-president and consulting engineer.

A Young Salesman's Death.

Frank J. Hurley, who died at the home of his parents in East Orange, N. J., recently, after a long illness, at the age of 29 years, was well known in the pneumatic tool trade, having traveled for number of years for the New York office of the Independent Pneumatic Tool Co.

Death of Adam Cook.

Adam Cook, senior member of the firm of Adam Cook's Sons, manufacturers of Albany Grease, died February 19 at his residence, 148 W. 78th St., New York city, after an illness of about four months. He was

born at Albany, N. Y., in 1867, and graduated at the Albany Military Academy. He early became a member of the firm, which his father, Adam Cook, founded at Albany in 1868.

Two "Milcor" Specialties.

The Milwaukee Corrugating Co., Milwaukee, Wis., has issued two original folders, one relating to its wrought iron, direct-drive conductor look for both brick and wood, and the other to "Milcor" batten strips, made of galvanized steel for making buildings windproof, weatherproof and ratproof. The advantages of these products are fully described and illustrated.

Metal Company Incorporated.

The Carolina Metal Co., manufacturer and dealer in non-ferrous metals, has been incorporated by Dr. W. P. Love, president; J. C. Bundy, vice-president, both of Charlotte, N. C.; J. S. Willard of Shelby, N. C., secretary and treasurer; Dr. R. Z. Linney and Dr. J. S. Hoffman, both of Charlotte. Among its products are "Carmec" anti-friction bearing metal; "Sands Babbitt," type metals, and O. B. R. brand solder. The main office and works are at Shelby. There is a branch sales office at Charlotte.

Thrift Club in American Clay Machinery Plant.

The American Clay Machinery Co., manufacturer of clayworking and sand lime brick machinery, Bucyrus, O., has organized a thrift club in its factories, the membership being confined to those who are in the American clay organization. The object of the club is to save for the members and to help our country. Joining the thrift club

is not compulsory, but every employee is urged to join it because of its excellent and patriotic objects. Six prizes are offered for successful efforts along thrift lines.

Death of Andrew Martin.

Jacques Wolf & Co., manufacturing chemists and importers, Passaic, N. J., announce the death on February 27, at Providence, R. I., of Andrew Martin, vice-president, who was ill but a short time. He was born June 7, 1850, in Scotland; was apprenticed to a dry goods firm in Manchester, England; came to the United States when a young man, and traveled for several firms. He was widely known in the textile industry, having successfully represented Jacques Wolf & Co. for more than 13 years. He was recently elected to the vice-presidency of the company.

Factory Buildings Enlarged.

The Western Tool & Manufacturing Co., Springfield, Ohio, has recently made an addition to its factory buildings of 45x100 feet, to be used for a grinding department. A smaller addition is also being made to another building, which may be used as a dressing-room for women operatives. This work is in line with what the company has been obliged to do during the last few years, several additions to its factory buildings being made necessary by the extending popularity of its tool holders, expanding mandrels, vises, etc.

L. A. Osborne on Industrial Peace Committee.

Loyall A. Osborne of New York, vice-president of the Westinghouse Electric & Manufacturing Co., and chairman of the Executive Committee of the National Industrial Conference Board, has been appointed by the Secretary of Labor to be a member of a committee on industrial peace during the war. The committee consists of five representatives of employers, five labor leaders and two public men. It will provide a definite labor program so that there may be industrial peace during the war, avoiding interruption of production.

Westinghouse Notes.

The Westinghouse Electric & Manufacturing Co. has leased for a term of years the Baxter Stove Co. plant at Mansfield, Ohio, with the intention of consolidating there the manufacture of its heating appliances, and the Pittsburgh Service Department of the company has moved from its former location on Amberson Ave. to new quarters at 6005 Susquehanna St., in the Homewood district of Pittsburgh. Express and freight should be consigned to East Liberty, Pa., via P. R. R. The Automobile Equipment Service Department has also moved to the new location.

Occupying New Plant.

The Florida Metal Products Co. of Jacksonville is now fully installed in its new metal-working plant, rebuilt on the site of the one recently destroyed by fire. It was reconstructed with a view to offering enlarged service and in order to give the greatest economy in the manufacture of metal ceilings, roofing, fire-escapes and other metal building materials, as well as metal culverts, canning apparatus, turpentine stills, cups and strips, charcoal stoves and other sheet-metal products made from No-Co-Ro and Jaxon metal. The officers of the company are C. P. Lovell, president and general manager; W. M. Stockton, secretary and treasurer, and Thurston Roberts, vice-president.

New Head of P-R Engine Company.

William T. Price recently resigned as manager and chief engineer of the De La Vergne Machine Co. (oil engine department) to become president of the P-R Engine Co. of New York, and second vice-president of the Rathbun-Jones Engineering Co. of Toledo, that will make and sell the Price-Rathbun stationary and marine oil engines, which are built in accordance with a new principle of fuel injection developed by him. This type of engine, it is claimed, operates with low compression and solid injection on four-tenths of a pound of crude oil per B. H. P. hour and is free from hot caps, starting torches and air compressor. The P-R Engine Co.'s main office is at 110 W. 40th St., New York, but it also has offices in Philadelphia, Baltimore and Toledo.

Morris Knowles in Government Work.

At the request of J. Rogers Flannery, director of the housing department of the United States Shipping Board of the Emergency Fleet Corporation, Morris Knowles of Pittsburgh, Pa., has been appointed

chief engineer of that department. Fifty million dollars will be spent for housing. Mr. Knowles plans to spend part of each week at Washington. He was supervising engineer at Camp Meade, Md., and at Camp McClellan, Ala., last summer and autumn, and he is now supervising similar work in developing Ojibway, Ontario, Canada, an industrial town for the Canadian Steel Corporation, Ltd., and for the Loveland Farms development of the Buckeye Land Co., which is a subsidiary of the Youngstown Sheet & Tube Co.

Plants Privately Offered for Sale.

An opportunity is presented to industrial enterprises which are contemplated, but which seek to acquire plants already constructed rather than to build their own plants, especially on account of the delay which the latter course would involve. This opportunity exists in the fact that H. L. Hopwood of Columbus, O., who is known as an industrial lawyer, has for several years made a specialty of dealing in factory plants, foundries, mills, etc., that are privately offered for sale. Confidential relations established with owners of such properties have enabled him to list a number of them well equipped, many capable of being converted easily for the manufacture of some kind of industrial products for which the war has created enlarged demand.

Is Now the Truscon Steel Co.

The Truscon Steel Co. is the new name of the Trussed Concrete Steel Co., which has its plant and general sales offices at Youngstown, O., with representatives in many large cities. Aside from the change of name, there has been no change in the company, whose organization and management continue as before. In its early days the company devoted its efforts to reinforced concrete steel, introducing the Kahn bar, florettes, etc., but for years its activities have expanded beyond the concrete field, so as to include a large variety of other kinds of steel products, such as steel window frames and sashes, metal lath, pressed steel joists, all steel buildings, inserts and various specialties. Its new name, therefore, fits it better than the old one, although embodying a suggestion of the origin of the business.

TRADE LITERATURE

Economy in Wagon Loading.

An excellently illustrated and most interesting catalogue recently issued by the George Haiss Manufacturing Co., Inc., New York, gives a very illuminating description of the Haiss self-feeding wagon loaders. They are shown at work under varying conditions and with different materials. A comparison between hand shoveling and the use of one of the "Anthracite" wagon loaders shows, under similar conditions, that the former costs 56½ cents for loading a ton of coal as compared with 3½ cents for the same work when done by the Haiss apparatus. This is with a laborer employed at 40 cents an hour and an auto-truck at \$1 per hour, the time occupied in shoveling being 25 minutes, while with the same truck by the new method only 1½ minutes is needed, although the same hour rates apply.

Pure Water and Safe Drainage.

"W. & T. Apparatus and Uncle Sam" is the name of a bulletin in a border of patriotic colors, and issued by the Wallace & Tierman Co., Inc., 137 Centre St., New York City, giving a list of installations of the water-purifying and sewage equipments made by this concern at twenty-five different places, including cantonments and aviation fields, training stations, etc. It is remarked that this equipment "for controlling and applying liquid chlorine (the 100 per cent sterilizing agent) has played an important part in insuring safe water and safe disposal of sewage—the elimination of water-borne disease. It is interesting to note that nearly all of the installations mentioned were of an emergency nature—requiring prompt and vigorous action for their speedy installation."

On Electrical Heating.

Of interest to everybody connected with the heating of baking, drying and japaning ovens is a reprint just issued by the Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., which includes an article, "Electrically Heated Japaning Ovens," by C. F. Hirshfield, reprinted from the N. E. L. A. Bulletin, and "Heat Calculations in

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lution for Baking and Drying Ovens," by W. S. Scott, reprinted from the Electric Journal. Thus there are grouped under a single cover an article giving general considerations in favor of electrical heating for this purpose, and an article giving the detailed method of calculation for the amount of heat required to raise the temperature of the work, of the supporting and carrying parts such as trucks and of the ventilating air. How to compute the

losses from the external surface of the oven, and the heat required to raise the temperature of the oven walls, etc., are also given. This publication should be of much value to central station solicitors who are endeavoring to interest their customers in the electrical heating of ovens, as well as to present to prospective users of such equipment. Copies will be furnished on application to any Westinghouse Electric branch office for Reprint 66.

electric-generating plant bonds will probably not be held until May 20. It was recently stated the election would be held March 25. Asa G. Candler is Mayor.

Ga., Jackson—(School).—Election will probably be called to vote on high-school building bonds. Address School Board.

Ga., Ty Ty—(Electric-light Plant, Waterworks and Schools).—City voted \$12,000 six per cent. bonds; denomination \$500; one bond matures each year; light bonds first and water bonds second; R. R. Pickett, Mayor.

Ky., Ashland—(School).—Legislature is reported to have passed a bill authorizing issue of \$20,000 of bonds. Address School Board.

Ky., Cynthiana—(School).—Election is to be held April 30 to vote on \$65,000 of bonds. Address Board of Education.

La., Bossier City—(Waterworks).—Bids will be received until 7 P. M. April 30 by U. W. Hutchings, Village Clk., for \$30,000 of 5 per cent. bonds.

La., Crowley—(Road).—Election is to be called in Acadia Parish to vote on \$350,000 of bonds. Address Police Jury.

La., Oberlin—(School).—Special election is to be held April 30 in Allen Parish to vote on \$60,000 of bonds for school at Kinder. Address Parish School Board.

La., Denham Springs—(School).—Bids will be received until 10 A. M. April 6 for \$10,000 of 5 per cent. 10-year \$500 denomination bonds School District No. 4, Livingston Parish, for school at Walker. Address Jno. E. Coxe, Secy. Parish School Board.

La., Mansfield—(School).—\$25,000 Logansport School District, De Soto Parish, bonds were recently voted. Address Police Jury.

La., St. Martinville—(Road).—St. Martin Parish Police Jury, L. M. Bourne, Prest., receives bids until April 8 for \$300,000 road bonds voted August 25, 1917; at not less than par and accrued interest; bid accompanied by certified check for \$12,500; for further information address Mouton & Deballion, Counsel, Lafayette, La. (Lately noted.)

Md., Emmitsburg—Town has applied to Legislature for authority to issue bonds. Address The Mayor.

Md., Federalsburg—Town applied to Legislature for authority to issue bonds. Address Town Clerk.

Md., Hurlock—Town applied to Legislature for authority to issue bonds. Address Town Clerk.

Md., La Platte—(Refunding).—Bill is before Legislature authorizing town to issue bonds to refund present indebtedness. Address The Mayor.

Md., Princess Anne—(County).—Bill has been introduced in the Legislature authorizing Somerset County to issue bonds. Address County Commsr.

Md., Rockville—Bill is before the Legislature authorizing bond issue. Address The Mayor.

Md., Rockville—(Road).—Bill has been introduced in the Legislature authorizing Montgomery County to issue bonds. Address County Commsr.

Md., Salisbury—(Improvement).—Wicomico County Commsr. applied to Legislature for permission to issue improvement bonds.

Md., St. Michaels—Town applied to Legislature for authority to issue bonds. Address Town Clerk.

Miss., Booneville—(School).—Bids will be received until noon April 2 for \$25,000 of not exceeding 6 per cent. 20-year bonds. L. D. Rinehart is Clerk Board of Aldermen.

Miss., Clearwater—(School).—Bids will be received until 11 A. M. April 9 by Dixie M. Hollins, Supt. Public Instruction, Pinellas County, for the following 6 per cent. bonds, dated April 1, 1918; \$6000 of 20-year \$1000 denomination bonds Special Tax School District No. 1 (Tarpon Springs); \$6500 of 20-year \$500 denomination bonds Special Tax School District No. 7 (Lealman); \$1500 of 10-year \$500 denomination bonds Special Tax School District No. 14 (Anona).

Fla., Tampa—(Road).—All bids received March 15 for \$875,000 of 5 per cent. 30-year \$1000 bonds, have made application for charter.

Okl., Hulah (not a Postoffice).—First State Bank of Hulah, Section 5, Township 28, Range 12, Osage County, is chartered under State laws; capital \$10,000. Officers and directors: A. W. Hurley, Pawhuska; Geo. R. Sutton, Prague, Okla., and J. H. Patterson, Hulah. Business is to begin immediately.

Okl., Benning—Guaranty State Bank, cap-

ital \$15,000, is incptd. by H. L. Cox, Durant; H. A. Brackett and J. F. Gregory.

Okl., Pauls Valley—Garvin County Abstract Co., capital \$5000, incptd. by H. G. Butts, Pauls Valley; W. L. Hart and C. A. H. Stier, F. W. Schatz, W. P. Orr, J. R. Hanack and Paul E. Duzeski.

Ark., Doddridge—Doddridge City Bank is chartered; capital \$10,000; Henry, Field Prest.; Allen Winham, Texarkana, V.-P.; and C. H. Bigby, Doddridge, Cashier.

Ark., Atlanta—First Trust & Savings Corp., capital \$100,000, surplus \$100,000, is being organized by Robert F. Maddox, Henry R. Durand, George R. Donovan and James L. Dickey of Fulton county, and Samuel C. Dobbs, De Kalb county.

Ark., Hamilton—People's Bank, succeeding the Bank of Harris County, is chartered; capital \$25,000; E. L. Pearce, Prest.; Dayton Calhoun and Britain Williams, V.-Ps.; E. F. Vickers, Cash. Business began Mch. 14.

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Ark., Sale City—Bank of Sale City is chartered; capital \$25,000; incptd.: J. W. Bingham, Atlanta; W. M. Smith, Doe Run, and F. C. Tabor, Arabia.

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Ky., Murray—Bank of Murray incptd. with \$60,000 capital by E. S. Diuguid, S. E. Dees and J. E. Owen.

La., Alexandria—Pendleton Investment Co. Incptd.; capital \$30,000; Allen B. Pendleton, Prest.; Wm. Polk, V.-P.; Henry A. Bynum, Secy.

Md., Cambridge—Farmers & Merchants' Bank of Cambridge applied to Legislature for incorporation. A letter to the Manufacturers Record says that the Farmers & Merchants' National Bank, now operating as a national bank, is seeking this charter as an emergency measure. The charter, if used at all, will be for the purpose of changing the present institution into a State bank. Wm. F. Applegarth is Prest., and L. Thurman Phillips, Cashier.

Mo., St. Louis—The German-American Bank gives notice that a meeting is to be held to vote on question of changing name to the St. Louis American Bank.

Mo., St. Louis—German Savings Institution gives notice that a meeting is to be held to vote on question of changing name to the Liberty Bank of St. Louis. J. L. Johnston is Prest.

N. C., Rocky Mount—North Carolina State Fire Insurance Co. organized; M. R. Braswell, Prest.; Geo. L. Wimberley, V.-P.; W. S. Wilkinson, Secy.; J. C. Braswell, Treas.; authorized capital \$250,000; paid in \$50,000; authorized surplus \$62,500.

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Ark., Blytheville—Delta Investment Co. has filed articles of incorporation; capital \$300,000; incorporators, R. L. McClelland, A. H. Stier, F. W. Schatz, W. P. Orr, J. R. Hanack and Paul E. Duzeski.

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N. C., Rocky Mount—North Carolina State Fire Insurance Co. organized; M. R. Braswell, Prest.; Geo. L. Wimberley, V.-P.; W. S. Wilkinson, Secy.; J. C. Braswell, Treas.; authorized capital \$250,000; paid in \$50,000; authorized surplus \$62,500.

Okl., Calera—Calera National Bank, capital \$25,000, has made application for charter.

Okl., Hulah (not a Postoffice).—First State Bank of Hulah, Section 5, Township 28, Range 12, Osage County, is chartered under State laws; capital \$10,000. Officers and directors: A. W. Hurley, Pawhuska; Geo. R. Sutton, Prague, Okla., and J. H. Patterson, Hulah. Business is to begin immediately.

Okl., Benning—Guaranty State Bank, cap-

ital \$15,000, is incptd. by H. L. Cox, Durant; H. A. Brackett and J. F. Gregory.

Okl., Pauls Valley—Garvin County Abstract Co., capital \$5000, incptd. by H. G. Butts, Pauls Valley; W. L. Hart and C. A. H. Stier, F. W. Schatz, W. P. Orr, J. R. Hanack and Paul E. Duzeski.

Ark., Blytheville—Delta Investment Co. has filed articles of incorporation; capital \$300,000; incorporators, R. L. McClelland, A. H. Stier, F. W. Schatz, W. P. Orr, J. R. Hanack and Paul E. Duzeski.

Ark., Atlanta—First Trust & Savings Corp., capital \$100,000, surplus \$100,000, is being organized by Robert F. Maddox, Henry R. Durand, George R. Donovan and James L. Dickey of Fulton county, and Samuel C. Dobbs, De Kalb county.

Ark., Hamilton—People's Bank, succeeding the Bank of Harris County, is chartered; capital \$25,000; E. L. Pearce, Prest.; Dayton Calhoun and Britain Williams, V.-Ps.; E. F. Vickers, Cash. Business began Mch. 14.

Ark., Hamilton—Peoples' Bank organized with \$25,000 capital by E. L. Pearce, Dayton Calhoun, W. I. Hudson, J. R. Lunsford and others. (Lately noted chartered.)

Ark., Montezuma—Bank of Montezuma chartered with \$30,000 by H. N. Gallaher, B. F. Neal and Yancey Hill.

Ark., Sale City—Bank of Sale City is chartered; capital \$25,000; incptd.: J. W. Bingham, Atlanta; W. M. Smith, Doe Run, and F. C. Tabor, Arabia.

Ky., Bagdad—Peoples' Bank of Bagdad incptd. with \$30,000 capital by B. D. Estes, A. A. Bailey, S. S. Weakley and W. W. Wilson.

Ky., Jamestown—A new bank capitalized at \$2,000 is reported organized with J. N. Meadows, Cashier, and Walter McKinney, Asst. Cashier. It is stated the Bank of Jamestown has been absorbed by the new institution.

Ky., Murray—Bank of Murray incptd. with \$60,000 capital by E. S. Diuguid, S. E. Dees and J. E. Owen.

La., Alexandria—Pendleton Investment Co. Incptd.; capital \$30,000; Allen B. Pendleton, Prest.; Wm. Polk, V.-P.; Henry A. Bynum, Secy.

Md., Cambridge—Farmers & Merchants' Bank of Cambridge applied to Legislature for incorporation. A letter to the Manufacturers Record says that the Farmers & Merchants' National Bank, now operating as a national bank, is seeking this charter as an emergency measure. The charter, if used at all, will be for the purpose of changing the present institution into a State bank. Wm. F. Applegarth is Prest., and L. Thurman Phillips, Cashier.

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PROPOSALS

(CONTINUED FROM PAGE 91.)

Bids close April 1, 1918.

\$500,000 Improvement BondsSTATE OF NORTH CAROLINA.
TREASURY DEPARTMENT.

Raleigh, March 4, 1918.
Sealed proposals will be received by me at this office in Raleigh, North Carolina, until April 1 noon, for the purchase of all or any part of the following bonds:

\$500,000 Permanent Improvement Bonds, dated July 1, 1918, as follows:

\$100,000.00, Mature July 1, 1928.
100,000.00, Mature July 1, 1929.
100,000.00, Mature July 1, 1930.
100,000.00, Mature July 1, 1931.
100,000.00, Mature July 1, 1932.

The bonds will be sold at par to the person bidding the lowest rate of interest not exceeding 4%.

Bonds paid for in full on April 1 will be exempted from all taxation, including income, and also when constituting a part of the surplus of any bank, trust company or other corporation.

Apply to me for blanks upon which to bid.
B. R. LACY,
State Treasurer.

Bids close March 26, 1918.

\$45,000 6% Bonds

Sealed bids will be received by the Board of Councilmen of the Town of Edenton, North Carolina, until eight o'clock P. M. on Tuesday, the 26th day of March, 1918, by J. E. McMullan, Clerk of said Board, for forty-five thousand (\$45,000) dollars of the authorized street-improvement bond issue of the said town under the authority of Chapter 13, Public Laws of the General Assembly of North Carolina, Session of 1917, the said bonds to bear interest at the rate of six per cent, payable semi-annually, to be dated January 1, 1918, and to mature as follows:

\$2000 January 1, 1919, and \$2000 annually thereafter for 18 years, and balance, \$7000, payable January 1, 1938.

A certified check, payable to C. H. Wood, Treasurer, for an amount equal to 2 per cent. of the face of the bonds bid for, shall

accompany each bid. The right to reject any and all bids is hereby reserved.

This bond issue is for the purpose of paying for completed street pavement now in use.

\$55,000 6% Bonds

Notice is hereby given that the Board of Supervisors of Clay County, Mississippi, will offer for sale on the 15th day of March, 1918, at the Court House in West Point, \$15,000 District No. 2 Road Bonds, bearing 6 per cent., payable semi-annually.

Sale Board of Supervisors will offer for sale on the 1st day of April, 1918, at the Court House in West Point, \$40,000 County Bonds, bearing 6 per cent., payable semi-annually.

All bids to be filed with the Clerk of said Board by 2 o'clock P. M. of said dates.

A certified check for \$500 must accompany each bid.

L. J. HOWARD, Clerk.

Bids close April 1, 1918.

\$68,000 Jail Bonds

Sealed bids will be received by the undersigned until April 1, 1918, for the purchase of \$68,000 coupon bonds of Newberry County, S. C. Proceeds to be used in the erection of a new jail. If interested, address the undersigned for full information.

J. C. SAMPLE, County Supervisor.
C. C. SCHUMPERT, County Treasurer.
J. B. HALFACRE, County Auditor.
Newberry, S. C.

Bids close April 1, 1918.

\$50,000 5% Bonds

Watauga County, North Carolina, offers Fifty Thousand Dollars (\$50,000) Good Roads Bonds, 5 per cent., semi-annual interest, serial issue, 5 to 30 years, sealed bids April 1, 10 A. M. Certified check vouchered for by local bank, 1 per cent. of bid required. For information write W. R. Gragg, Clerk Board of Commissioners at Boone, North Carolina. W. R. GRAGG, Clerk Board County Commissioners.

Municipal Bonds Purchased

Correspondence invited from investors wishing to sell their holdings of seasoned marketable Municipal Bonds, and from municipal officials and contractors in connection with entire new issues.

THE NATIONAL CITY COMPANY
55 Wall Street, New York

PHILADELPHIA

BOSTON

TOWNSEND SCOTT & SON
Bankers and Brokers

New Capital for Established Enterprises

We are interested in the financing of sound industrial enterprises throughout the South. Loans made also to public utilities and municipalities

Established 1832

BALTIMORE, MD.

LOANS MADE TO STATES, CITIES, COUNTIES, ETC.**Also Entire Issues of Bonds of Successful Industrials Purchased**

Largest Capital and Surplus of Any Financial Institution in Maryland or Any Southern State.

Established 1884

Resources \$21,000,000

MERCANTILE TRUST and DEPOSIT CO.
OF BALTIMORE

A. H. S. POST, President

F. G. BOYCE, Jr., Vice-President

Twenty-Five Years' Experience

AUDITORS ACCOUNTANTS COST ACCOUNTING

New York, Louisville, Augusta, St. Louis, Pittsburgh, Cincinnati, Richmond, Chicago, Milwaukee, Columbus, Grand Rapids, Detroit, and West Virginia References.

State Public Service Utility Audit and Investigating Co., Inc.

306-307 Kanawha National Bank

CHARLESTON, WEST VIRGINIA

COUNTY, SCHOOL AND DISTRICT BONDS

The Mercantile Trust Company, Saint Louis, through its Bond Department, is always in the market for County, School and District Bonds. We have the facilities for handling whole issues of County, School and District or Municipal Bonds and all matters pertaining to them. We will be glad to bear from banks or investors who may wish to buy or sell high-grade bonds.

MERCANTILE TRUST CO., ST. LOUIS, MO. Capital and Surplus, \$9,500,000

W. L. SLAYTON & CO.

TOLEDO, OHIO

DEALERS IN
CITY
COUNTY
TOWNSHIP
BONDSROAD
SCHOOL
DRAINAGE

We solicit your patronage

HAVE YOU BONDS FOR SALE?

WE BUY ALL CLASSES OF MUNICIPAL BONDS, INCLUDING CITY, COUNTY, SCHOOL, PAVING, ROAD AND DRAINAGE

The Hanchett Bond Co. Inc.
39 SOUTH LA SALLE ST., CHICAGO

Strayer's Business College, Inc.

Charles and Fayette Sts.
Baltimore, Md.Ninth and F Sts. N. W.
Washington, D.C.

Fully accredited by the National Association of Accredited Commercial Schools. Teaching latest methods in Shorthand, Typewriting and Commercial Subjects. Departments headed by Degree Teachers.

The Government needs TEN THOUSAND STENOGRAPHERS, and a representative of the Civil Service Commission visited Strayer's Business College recently and urged us to provide as many as possible.

This is YOUR opportunity. Classes now open. Day and Night School all the year. Enroll at once. Write us today.

PREScott & SNIDER, Kansas City, Mo.

DEALERS IN
BONDS

In the market at ALL times for whole issues of High-Class Municipal Bonds, City, County, School, Road and District. Also First Mortgages.

Correspondence invited from Officials and Contractors.

You Should Strive to Reduce Your Labor Turnover

during the war in order to meet the conditions which will follow after the war

BECAUSE:

There has been no immigration. Immigration will not return until the alarming increase and cost of which restless workers now secure. Steady and continuous service is for elimination of wastes in opera-

during the war. definite treaties have been signed. migratory labor is due to ease with employment at high wages. necessary not only for efficiency but tion and production.

GROUP INSURANCE

will serve to bind your employees closer to you. It will engender a better feeling thereby producing greater efficiency and loyalty. Let us prove its value by furnishing testimonials from enthusiastic patrons among America's great Corporations. We are in position to give you expert service.

THOMAS & THOMAS

Home Office Representatives

AETNA LIFE INSURANCE CO., of Hartford, Conn.

Healy Building
ATLANTA, GA.

S. W. Cor. Calvert and German Streets (2nd Floor)
BALTIMORE, MD.

Steel for Service

In new road construction where the hauling of materials is done by industrial trains, anything that will tend to lessen the time in laying and relaying tracks should be worth considering by the contractor.

The Carnegie Steel Company makes different sizes of

Steel Cross Ties

suitable for any kind of industrial service.

They can be quickly laid and relaid. Also the fastening of rail to the tie is such as to make practically impossible the spread of the rails and the resulting annoyance and loss of time.

Pamphlet—Steel Cross Ties—describes several sizes which this company rolls. The book can be procured from any district office.

Carnegie Steel Company

General Offices : Pittsburgh, Pa.

954

CHARLES L. HEHL, C. P. A., President JOHN KUCHLER, C. P. A., Vice-President
ERNEST E. WOODEN, C. P. A., Sec. and Treas.

BALTIMORE AUDIT COMPANY

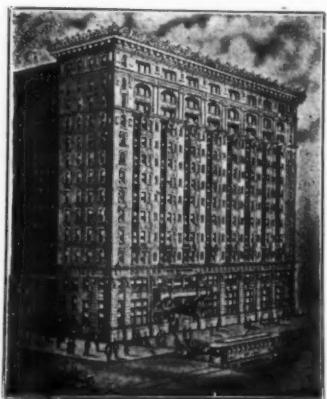
901-903 Calvert Building BALTIMORE, MD.

York Safe and Lock Company MANUFACTURERS OF SAFES and VAULTS YORK, PA. BALTIMORE, MD.

To keep in touch with Southern Development, read the Manufacturers Record.

THE GRUNEWALD

THEO. GRUNEWALD, Proprietor



New, Modern
Best Equipped and Finest
Hotel in the South

Cost Over \$2,000,000

400 Rooms European Plan

RATES:
\$1.00 and Upwards. With Bath,
\$2.50 and Upwards.

NEW ORLEANS

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close April 15, 1918.

TREASURY DEPARTMENT, Bureau of Engraving and Printing, Washington, D. C., March 4, 1918. Sealed proposals are invited to furnish Dextrine, Oils, Textiles, Engravers' Supplies, Dry Colors, Paper Box Blanks and Paper during the fiscal year beginning April 1, 1918. The right is reserved to reject any or all bids or parts of bids. Samples of Dextrine, Oils, Textiles, Engravers' Supplies and Dry Colors must be received at the Bureau of Engraving and Printing not later than 2 P. M. Monday, April 15, 1918. Samples of Paper Box Blanks and Paper not later than 2 P. M. Monday, April 8, 1918. Blank forms, with specifications for proposals, giving dates on which the bids for the several schedules will be opened, and further information will be furnished on application to JAMES L. WILMETH, Director.

Bids close April 29, 1918.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., March 18, 1918. Sealed proposals will be opened in this office at 3 P. M. April 29, 1918, for the construction of the United States postoffice and courthouse at Paris, Tex. Drawings and specifications may be obtained from the custodian at Paris, Tex., or at this office, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close April 1, 1918.

PROPOSALS FOR DREDGING. U. S. Engineer Office, Baltimore, Md. Sealed proposals for dredging in channel to Curtis Bay, Md., will be received here until 1 P. M. April 1, 1918, and then opened. Further information on application.

Bids close April 3, 1918.

Street Improvement

DEPARTMENT OF PUBLIC IMPROVEMENTS,
SUB-DEPARTMENT OF HIGHWAYS
ENGINEER.

Baltimore, Md., March 15, 1918. Proposals will be received by the Board of Awards of Baltimore City for the "Parkway Improvement between St. Paul and Courtland Streets and between Franklin and Lexington Streets."

The work will consist of approximately 20,000 cubic yards of excavation, 950 linear feet of masonry retaining wall 13 ft. high, with cut stone balusters, and 300 linear feet of other masonry walls; also five (5) large ornamental stairways and fountains, consisting of about 15,000 square feet of cut stone and 4000 square feet of brick work, and about 300 linear feet of curbing and 50,000 square feet of sidewalks.

Bids must be executed in duplicate and enclosed in sealed envelopes, addressed to the Board of Awards, in care of the City Register, City Hall, Baltimore," and marked, "Bids for Parkway Improvement of St. Paul and Courtland Streets, between Franklin and Lexington Streets."

They must be at the City Register's office in the City Hall on or before 11 o'clock A. M. of Wednesday, April 3, 1918.

Bids must be accompanied by a certified check of the bidder on some clearing-house bank to the amount of One Thousand (\$1000) Dollars, drawn to the order of the Mayor and City Council, and which will be forfeited to the city as liquidated damages in case an award is made and the contract and bond are not promptly and properly executed, as required by Section 15 of the City Charter.

Drawings and specifications can be had at the office of the Highways Engineer on and after March 18, 1918.

The Board reserves the right to reject any or all bids.

R. M. COOKSEY,
Highways Engineer.

Bids close April 8, 1918.

Road Construction

Sealed bids will be received at the office of the County Clerk of Manatee County, at Bradenton, Florida, until 10 o'clock A. M. on Monday the 8th day of April, A. D. 1918, by the Board of County Commissioners of Manatee County, Florida, for the construction of approximately 22 miles of hard-surfaced road and such other structures as will be necessary to complete the roads in what is known as Palmetto Special Road and Bridge District in Manatee County, Florida, according to revised plans and specifications made by C. S. Hill, Engineer, now on file in the office of the Board of County Commissioners of Manatee County. In case where plans and specifications are sent out a charge of one dollar for specifications and five dollars for plans will be made.

Each bidder will be required to accompany his bid with a certified check for the sum of \$1000, made payable to William M. Taylor, Clerk, as guarantee that he will, if awarded the contract, enter into a written contract and execute such bond as will be satisfactory to the Board of County Commissioners.

The Board of County Commissioners reserves the right to reject any and all bids.

M. G. RUSHTON,
Chairman Board of County
Commissioners.

Attest: WILLIAM M. TAYLOR,
Clerk.

Bids close April 12, 1918.

Road Improvement

Centreville, Tenn., March 6, 1918. Sealed bids for the improvement of roads in Hickman County, Tennessee, will be received by the Highway Commission of Hickman County until 12 o'clock noon Friday, April 12, 1918, and at that time publicly opened in the Court House at Centreville, Tennessee.

Proposed improvement includes the grading of approximately 100 miles of road, requiring approximately 500,000 cubic yards excavation, and necessary drainage structures.

This improvement will be the last portion of the work let of a system of roads designated under the recent \$225,000 bond issue, amounting to approximately \$175,000.

Each proposal must be accompanied by certified check of Twenty-five Hundred Dollars (\$2500), made payable to T. H. Erwin, Secretary Hickman County Highway Commission.

Plans and specifications will be on file at the office of T. C. McEwen, County Engineer, Centreville, Tenn., on and after March 20, 1918.

A bond to secure performance of contract and the payment of all claims for labor and material will be required in accordance with Chapter 182, Acts of 1899, State of Tennessee.

The Highway Commission reserves the right to reject any and all bids.

(Signed) T. H. ERWIN, Secretary.

Bids close April 1, 1918.

Asphalt Blocks

Richmond, Va.

Sealed proposals will be received at this office until 12 o'clock noon April 1, 1918, for the furnishing and delivery in Richmond, by boat or rail, of 200,000 asphalt blocks, size 12"x5"x4" or 12"x5"x3". Specifications and form of proposal obtainable at this office. Sample block required, and certified check for \$500, as guarantee of execution of contract, required with each proposal. The Administrative Board reserves the right to reject any and all bids.

A certified check for amount stated (\$500) on proposals must accompany each bid as a guarantee of execution of contract. The Administrative Board reserves the right to reject any and all bids.

CHAS. E. BOLLING,
City Engineer.

Bids close April 3, 1918.

Roads and Bridges

Board of Supervisors Union County, Mississippi, will let about 30 miles of grading roads, including bridges and culverts, 5 per cent. grades. \$300,000 bonds authorized. Bids wanted from contractors with good outfits who can speed up the work. Contract will be let at New Albany, Miss., April 3, 1918, at 2 o'clock P. M. For further information write R. L. Smallwood, Secretary Union County Highway Commission, New Albany, Miss. R. L. Smallwood, Secretary.

Bids close April 1, 1918.

Road Building

Potts Camp, Mississippi, Road District will receive bids until noon April 1 at Holly Springs, Miss., for improving about five miles of road, mostly side borrow. About 60,000 cu. yds. embankment. Check made to Potts Camp Road District for \$1000 to accompany bids.

DR. F. P. BOATNER,
Potts Camp, Miss., Comm.
JOS. P. CAREY,
New Albany, Miss., Engr.

Bids close April 11, 1918.

Street Improvements

The Town of Lake Alfred, Florida, will let street improvement on April 11, 1918, bids closing at 1:30 o'clock P. M.

About 15,000 square yards of asphalt concrete paving, 65,000 sq. yards clay paving and about 48,000 cu. yds. earth excavation, together with concrete curb and gutter work.

Engineer in charge, J. W. Turner, Lakeland, Fla.

Town Clerk, J. F. Jester, Lake Alfred, Fla.

Bids close April 13, 1918.

Paving and Sewers

The Council of the City of St. Albans, West Virginia, will receive bids until 2 o'clock P. M. April 13, 1918, for the following:

Approximately 13,200 sq. yds. paving and 6000 cu. yds. grading.

About 13,000 ft. terra-cotta and brick sanitary sewer.

Also about 100,000 sq. ft. sidewalk and 2000 cu. yds. excavation.

See plans and specifications of above work in office of City Manager.

Each bid for street paving must be accompanied by certified check for the sum of \$1000. Each bid for the sidewalk or for the sewer work must be accompanied by a check for \$500.

The Council reserves the right to reject any or all bids.

L. A. EDWARDS, City Clerk.
J. M. OLIVER, City Engineer.

Bids close March 29, 1918.

Alumina Sulphate

Office of
Superintendent City Water-Works,
Room 112 City Hall,
Richmond, Va.

Sealed proposals will be received at this office until 12 M. March 29, 1918, for furnishing this department with alumina sulphate, high basicity, for water clarification, containing seventeen per cent. aluminum oxide, delivered f. o. b. Korah Station, Chesapeake & Ohio Railway, in barrels, at such time and in such quantities as the superintendent may require. Estimated quantity 880 tons.

Further information can be obtained at this office.

The Administrative Board reserves the right to reject any or all proposals or any part of any or all proposals, also to increase or decrease the specified quantities twenty per cent.

A certified check for \$200, payable to the City Treasurer, must accompany each bid.

Proposals must be submitted in sealed envelope, containing the name and address of the bidder, directed to the Administrative Board, and in the lower left-hand corner must be written, "Proposal for Aluminum Sulphate."

Bond will be required on contract.

E. E. DAVIS,
Superintendent.

March 15, 1918.

Bids close March 29, 1918.

Water-Works Supplies, Etc.

Office of
Superintendent City Water-Works,
Room 112 City Hall,
Richmond, Va.

Sealed proposals will be received in this office until 12 M. March 29, 1918, for the following supplies and contract work:

Gate valves, cast-iron pipe, special castings, three-nozzle fire hydrants, valve boxes, meters, meter boxes, pig-lead, wiping solder, lead pipe, brass work and hauling.

Specifications, plans and information can be obtained in this office, and bids must be made on form of proposal furnished by this office.

The Administrative Board reserves the right to reject any or all bids or any part of any or all proposals, also to award contract as a whole or in part. Also to increase or decrease the specified quantities twenty per cent.

A certified check for \$100, payable to the City Treasurer, must accompany each bid. Bond will be required on contract awarded.

E. E. DAVIS,
Superintendent.

March 15, 1918.

Bids close March 25, 1918.

Drainage Improvements

Anderson, S. C., March 11, 1918.

Notice is hereby given that at the office of Bonham, Watkins & Allen, attorneys, Anderson, S. C., on March 25, 1918, a contractor will be let to the lowest responsible bidder for the excavation of 26,322 cubic yards of earth and the erection of three rip-rap dams in five tributaries of Eighteen Mile Creek, within the Eighteen Mile Drainage District in Pickens, Oconee and Anderson counties, S. C. Plans and specifications of the said work are on file in the office of the said attorneys for the said district and may be had upon application to them. The commission reserves the right to reject any and all bids, and the successful bidder will be required to execute bond for the faithful performance of his contract, as required by Section 2216, Code of Laws of S. C. (1912).

JOHN W. LINLEY,
Chairman Board of Commissioners,
Eighteen Mile Drainage District.

Bids close March 29, 1918.

Liquid Chlorine

Office of
Superintendent City Water-Works,
Room 112 City Hall,
Richmond, Va.

Sealed proposals will be received in this office until 12 M. March 29, 1918, for furnishing and delivering 24,000 pounds of liquid chlorine, in 100-pound cylinders, f. o. b. cars Korah Station, Chesapeake & Ohio Railway Company, at such times and in such quantities as may be required by the superintendent.

Further information can be obtained from this office.

The Administrative Board reserves the right to reject any or all proposals or any part of any or all proposals, also to increase or decrease the specified quantities twenty per cent.

A certified check for \$100, payable to the City Treasurer, must accompany each bid. Bond will be required on contract.

E. E. DAVIS,
Superintendent.

March 15, 1918.

Bids close April 2, 1918.

Quay Construction

BOARD OF WHARF AND DOCK
COMMISSIONERS
Office—City Hall.

Beaumont, Texas.

Sealed bids will be received by the City Council of the City of Beaumont for furnishing all tools, material, labor, etc., for constructing the following work at Kirby's Point, City of Beaumont, Tex., namely:

One thousand feet of quays, including dredging, excavation, filling and removal of old piles and all other incumbrances.

Seven hundred and fifty feet of quays, including dredging, excavation and removal of old piles and all other incumbrances.

Five hundred feet of quays, including dredging, excavation, filling and removal of old piles and all other incumbrances.

A certified or cashier's check in the sum of 5 per cent. of the amount of said bid or bids, made payable to Emmett A. Fletcher, Mayor, on some Beaumont bank or trust company, will be required to accompany each bid. (Check for 3 per cent. on 1000 feet of quays, etc., will answer for all three lengths.)

For specifications, plans or other information apply to the office of the Board of Wharf and Dock Commissioners, City Hall, Beaumont, Tex. Said plans and specifications will be furnished for five dollars, which will be returned to the unsuccessful bidders upon return of all plans and specifications in good order.

If contractors desire they may submit designs of their own to conform with the city's plans and specifications.

Bids to be considered must be filed on or before 10 o'clock A. M. April 2, 1918.

Said bids should be addressed to J. G. Sutton, City Secretary, City Hall, Beaumont, Tex., and marked "Bid for Quay Construction."

The City Council reserves the right to reject any and all bids.

J. G. SUTTON,
City Secretary.
C. L. SCHERER, Engineer.

Bids close April 8, 1918.

Drainage Canals

Sealed proposals will be received by the undersigned at Georgetown, S. C., until 12 o'clock noon April 8, 1918, for the construction of approximately eleven miles of drainage canals. Plans and specifications will be furnished by McCrady Bros. & Cheves, Civil Engineers, Charleston, S. C.

GEORGETOWN FARM LAND &
HOMESEEKERS' CO.

Bids close April 1, 1918.

\$18,000 5% Bonds

City of Quincy, Florida, offers for sale to the highest and best bidder for cash, serial bonds of said city in the sum of eighteen thousand dollars, payable May 1, A. D. 1918, bearing interest at rate of 5% per annum, said interest payable semi-annually on the first day of May and the first day of November of each year; bonds to be in the denomination of \$500, two of which to be determined by the City Council of said city by lot, shall be retired on the 15th day of May of each and every year after the year A. D. 1918.

Sealed bids for the purchase of said bonds will be received at the office of City Clerk of the City of Quincy, Florida, until 11 o'clock A. M. April 1, 1918, and each bid must be accompanied by a certified check for 10 per cent. of the par value of the bonds bid for, as evidence of good faith of the bidder, and to pay all damages the said City of Quincy may sustain on account of the non-compliance of the bidder with the terms of his said bid. The City of Quincy reserves the right to reject any and all bids, and no bid will be accepted for less than the par value of said bonds.

CITY OF QUINCY,
By W. E. SHELTER,
President City Council.

J. P. SMITH,
City Clerk.

Bids close April 9, 1918.

Notice to Bond Buyers

Notice is hereby given that the Board of Mayor and Selectmen of the City of West Point, Mississippi, will offer for sale on the 9th day of April, 1918, at the City Hall in said city, \$15,000 Bonds, bearing not exceeding 6 per cent. interest, payable in five equal annual payments.

Said Board will also offer at the same time \$30,000 Bonds, bearing not exceeding 6 per cent. interest, and will receive bids therefor on two propositions—(a) payable in ten equal annual payments, (b) payable in twenty equal annual installments.

All bids to be filed with the Clerk of said city by 7 o'clock P. M. on said date.

A certified check for \$350 must accompany each bid.

Witness my signature, this the 15th day of March, 1918.

J. L. YOUNG,
City Clerk.

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

LIMESTONE LAND

VALUABLE LIMESTONE FOR SALE. 160 acres limestone of high grade, suitable for flux, on C. & O. Railway, near the glass factories and other enterprises needing flux at Charleston, W. Va. For further information write R. B. Holt, Lewisburg, W. Va.

PHOSPHATE ROCK

FOR SALE—Two million tons of blue rock phosphate in the ground near Mt. Pleasant, Tenn., running from 58 to 72 per cent. bone phosphate of lime; spur of the L. & N. R. runs through it; locating the Government nitrate plant at Muscle Shoals, Ala., makes the property more valuable; Muscle Shoals is only 60 miles from Mt. Pleasant. Major W. N. Hughes, U. S. A., 52½ Broadway, Nashville, Tenn.

PEBBLE PHOSPHATE

FOR SALE—Florida pebble phosphate deposit. THREE MILLION SEVEN HUNDRED FIFTY THOUSAND TONS. Located in Polk County, Florida. This rock is contained on 520 acres of land, averaging 10,000 tons per acre on the rock area. A part of this land shows as high as 17,000 tons per acre. Average analysis 70.23% B. P. L. sand 7.29%, I. & A. 2.57%. WALTER H. LEWIS, P. O. BOX 55, BARTOW, FLORIDA.

MANGANESE ORE LANDS

FOR SALE. 200 acres fine manganese property. United Minerals Company, Roanoke, Va.

760 ACRES MANGANESE ORE LANDS for sale; engineer's estimate, \$800,000 tons; railroad one mile; now mining with pick and shovel; analysis and records available. Address Doak Aydelott, Tullahoma, Tenn.

MANGANESE ORE LANDS WANTED

IF YOU have high-grade manganese ore in the Southern Appalachian section, and are willing to let the operator make part of the money, write full particulars to No. 5074, care Manufacturers Record, Balt., Md.

FIRE-CLAY LAND

FOR SALE—Large tract of fire-clay land in Southern Pennsylvania. Well-known vein, hard and soft clay; best in State. Good railroad facilities. Address P. O. Box 584, Philadelphia, Pa.

TRAP ROCK

THE HIGHEST GRADE road-paving material for wearing surface of concrete, bituminous and bituminous concrete pavements. Large deposit of the best quality of this grade rock near Newnan, Ga. Can be purchased or leased by party wishing to establish quarrying, crushing and shipping plant. Located directly on railroad. Power line within one and one-half miles. See Bulletin No. 8, Geological Survey of Georgia, pages 88 and 179. Address S. L. Hill, Newnan, Ga.

COAL LANDS AND MINES

FOR SALE OR LEASE—160 acres Elkhorn coal, 4 to 6 feet thick, on Rockhouse and Millstone Creeks, Letcher Co., Ky. 300 acres on Beaver Creek; coal 7 feet thick. J. H. Frazier, Whitesburg, Ky.

FOR SALE—Coal mines and coal lands on or near railroads in Alabama, Kentucky, West Virginia and Ohio. Excellent gas and steam coal. H. C. Van Aken, 309 Post Building, Battle Creek, Mich.

COAL AND TIMBER LAND

50,000 ACRES Tennessee coal and timber lands, located in Lincoln, Franklin and Coffee counties; must sell to settle partnership. Price, \$2.50 per acre; \$15,000 cash, balance on ten equal annual payments. Would accept exchange property to the amount of one-half. T. N. Figuers, Jr., Columbia, Tenn.

LOANS ON TIMBER LANDS

LOANS ON TIMBER LANDS AND OPERATIONS. F. R. Meier, 165 Broadway, New York.

TIMBER LAND

FOR SALE—Land and timber in fee. 12,140 acres, Henderson Co., N. C., 6 miles from Sou. Ry. Lately cruised by South's best timber cruiser and shows to contain following:

White pine, 8 million.

Yellow pine, 5 million.

Yellow poplar, 11 million.

Oak, all varieties, 22 million.

Chestnut, 14 million.

Basswood and cucumber, 2½ million.

Hickory, 1½ million.

Hemlock, 8 million, all original growth, large size, good logging. Price \$200,000. Blueprint and other information on application. In addition to above timber, there are 75,000 cords chestnut wood and 22,000 cords oak and hemlock bark. A. B. Chandler, Walterboro, S. C.

FOR SALE—1350 acres virgin Georgia timber land. Will produce 10,000 feet per acre. 65% oak. Price and terms reasonable. E. A. Robertson, Box 373, Petersburg, Va.

RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 23¢ per line; 300 lines, 21¢ per line; 500 lines or more, 20¢ per line.

TIMBER LAND

FOR SALE—One hundred thousand acres of timber land in Manatee County, Florida. All long-leaf yellow pine, estimated to cut four thousand feet per acre. This land is in the artesian well district, high and dry. Specially adapted to citrus fruit and trucking. Climate ideal. Located near the East & West Coast Railroad. Will sell all or any portion thereof at ten dollars and fifty cents (\$10.50) per acre. Liberal terms. Apply or address The Myakka Co., Charleston, S. C.

4000 ACRES long-leaf yellow pine, with some cypress, in phosphate zone, on railroad in Levy County, Florida. One-third not turtledomed; none cut over; will cut about fifteen million feet. Land adapted to farming or stock raising. Price timber, \$12.50, or free, \$15.50 per acre. Address Timber Owner, Box 7, Atlanta, Ga.

LAND AND TIMBER BARGAIN.—Near two railroads; 4000 acres North Arkansas, 5000 feet per acre; white oak, red oak, gum, hickory, etc. Fine level land; no overflow. Will sell timber alone or in feet at half value for cash if taken quickly. Address "Owners," Box 329, Memphis, Tenn.

TIMBER

15,000,000 FEET VIRGIN TIMBER in Caroline County, Va. As fine as grows. Will cut anything. Two-thirds hardwood, mostly white oak, hickory and poplar, balance yellow pine. Good level logging land. Price \$80,000.

50,000,000 feet short-leaf pine, Eastern North Carolina. Price \$200,000. Up-to-date band mill in Eastern North Carolina; 60,000,000 feet standing timber behind it. Making good money. Price and terms on application. Green & Redd, Ninth and Franklin Sts., Richmond, Va.

FOR SALE—Fifty million feet of fine South Carolina timber, consisting of thirty-nine million feet red gum, five million oak, three million cypress, three million short-leaf pine. This timber is very large and of fine quality; easily logged at any time of the year. Price reasonable. Accessible to railroads. Will bear closest investigation. Address No. 5033, care Manufacturers Record.

FARM AND TIMBER LANDS

WE OWN LARGE TRACTS OF TIMBER LANDS, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

FRUIT, FARM AND TRUCK LANDS

ALABAMA

FOR SALE—1000-acre farm, 4 million ft. timber, 2 Continental Linters, 1 Scientific grinding mill, 2 cleaners and feeders, 1 saw cylinder, 1 bolt and beater, 1 cotton press, 1 10 H. P. engine, 1 30 H. P. boiler. Mrs. Geo. A. Seary, Tuscaloosa, Ala.

CHATTahoochee VALLEY STOCK FARMS in Southeast Alabama. Write Smith & Morgan, Dothan, Alabama.

ARKANSAS

I HAVE 10,000 ACRES of good farming lands scattered around in Ashley county at from \$8 to \$15 per acre. These lands are unimproved, but will make good farms. I own the lands and am not an agent. I want to sell. Will give terms if desired. G. P. George, Hamburg, Ark.

FLORIDA

A BEAUTIFUL WINTER HOME, a profitable orange and grapefruit grove, a general farm, cattle, hog or poultry ranch in the famous Indian River section, Vero, Florida. The wonderful climate permits not only agricultural operations all the year, but all enjoyable life-prolonging outdoor sports. Investigate now this wonderfully charming section. Indian River Farms Company, First National Bank Building, Vero, Florida.

FOR A SAFE and permanent investment, Florida lands and values should interest you. Manatee County is the best location, and is destined to become one of the most progressive settlements in the State and a very profitable settlement. Florida farms in Manatee County are below frost belt; have rich soil, with 365 producing days. Easy terms. Manasota Land & Timber Co., Maryland Quality Tower Building, Baltimore, Md., and Sarasota, Florida.

BUSINESS OPPORTUNITIES

WILL PURCHASE electric light and water-works properties having established earnings and located in substantial growing communities. Give particulars concerning present annual gross earnings and franchise conditions. Address Treasurer, P. O. Box 1136, Providence, R. I.

NO ICE THIS YEAR.—I control a device that will put ice in every home where there is electricity at less than 5 cents a day; will show you enormous possibilities with small investment for organization expense. Full information on request. Fred W. Wolf, 227 N. Wells St., Dept. 92, Chicago, Ill.

BUILDING LOTS

150 LOTS left in a beautiful, well-restricted and improved subdivision convenient to Bethlehem Steel Co. and other big industries adjoining the Government's new \$2,500,000 plants. Sale goes on rapidly, and 400 lots on said subdivision have been sold within about two months, the remainder being an average of \$300 each, while no land can be bought adjoining the tract. We are open for a proposition from any investor who will figure to buy all of this land. Terms satisfactory. For information address No. 5043, care Manufacturers Record.

BUILDINGS—STEEL PORTABLE

"PRUDENTIAL" STEEL BUILDINGS for all purposes; portable one-story construction; workshops, toolhouses, storage, garages, bunkhouses, etc. Write for Catalog A. C. D. Pruden Company, Baltimore, Md.

INCORPORATING COMPANIES

DELAWARE CHARTERS. Stock Without Par Value. Directors Need Not Be Stockholders. Other important amendments (March 20, 1917). Write for new DIGEST (4th ed.) CORPORATION COMPANY OF DELAWARE Equitable Building, Wilmington, Delaware.

PATENT ATTORNEYS

PATENT YOUR IDEAS.—\$9000 offered for certain inventions; book, "How to Obtain a Patent," and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, Patent Attorneys, 978 F St., Washington, D. C.

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PATENTS.—Write for how to obtain a patent, list of patent buyers, and inventions wanted. \$1,000,000 in prizes offered for inventions. Send sketch for free opinion as to patentability. Our four books sent free upon request. Patents advertised free. We assist inventors to sell their inventions. Victor J. Evans Co., Patent Attorneys, 712 Ninth St., Washington, D. C.

POSTAL will bring free booklet telling all about patents and their cost. Shepherd & Campbell, Patent and Trade-Mark Attorneys, 732 8th St., Washington, D. C.

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EXPERIMENTAL work in vacuum drying. Why not try it for your products? Write for information. Frederick J. Maywald, Consulting Chemist, 89 Pine St., New York.

VINEGAR PLANTS OPERATED

RICHARD TURNER, Practical Vinegar Maker. Erects and operates vinegar plants. Correspondence solicited. Address 2703 Alameda Avenue, Baltimore, Md.

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